

A History Of Ayurveda in Andhradesa



HYMAVATHI

HISTORY OF
AYURVEDA
IN ANDHRADESA

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To
my beloved parents
Sri Polavarapu Sitaramaiah
and
Smt. Anasuya Devi

PREFACE

Millions of generations passed into history. Many changes took place in course of time some of which seemed to be natural, penetrating into the human life, some appeared to be exiting, influencing the existing system and some others proved to be revolutionary welcoming the developments. It is incumbent on the successive generations to observe in retrospect to what factor or factors contributed for what and which new developments influenced the process of civilization. Self-examination and assessment help a country to take a proper and meaningful further step. If not, it proves to be an aimless journey which may cause a serious set back in the national development for centuries, Indians have been achieving wonderful scientific and cultural successes. In the field of medicine, they put forth many wonderful doctrines such as the doctrine of *tridōṣa*. During the ancient period, India guided even the Greeks, who are said to be the fore-runners in the field of medicine till recently. Prof. Cyril Elgood, a medical historian and a recognised authority on Persian medicine, writes, "The so-called Greek views had been taught long before on the banks of the Euphrates and even before that in India. The doctrine of the humours is taught in unmistakable terms in the holy books of the Hindus, which were composed prior to 2000 B.C. From India, the theory seems to have spread to Persia and the Persians who seem in matters scientific always torch-bearers rather than torch lighters, carried the doctrine on, malifying it and expanding it no doubt, until it reached a nation that was able to express it in a dogmatic and concise form to give it an independent existence." (*Medical History of Persia and the Eastern Caliphate*, pp.19-20, referred by Dr.P.Kutumbaiah in *Ancient Indian Medicine*, xv-xvi) Dr.P.Kutumbaiah also proved in his work that the scientific medicine flourished in India long before it did in Greece. Thus it is clear that the Indians shared the fruits of their achievements with the foreigners with whom they came into contact. Their policy was to give and take which was limited extent of mutual understanding and respect.

In the beginning, Indians shared their views with the Persians, Greeks and the Chinese. During the medieval period, when Muslims

invaded the country and started their rule, The Hindus suffered from a feeling of insecurity. But later, they adjusted with the new political authority. The Muslim rulers tried to develop their original systems with the help of Indian elite. They got many scientific works translated into Persian, Arabic and Turkish languages. They held discussions among the court-scientists who were both Hindus and Muslims. It means that the Indian sciences were respected and were received by the Muslims. Hindu scholars too reciprocated it. They took the pharmaceutical method of making *araks* from the Unani system and many new drug-substances which were of Persian origin. Even the Dutch and the Portuguese, who came to India during the later medieval period, appreciated the Indian physicians and the surgeons their vast knowledge in the *materia-medica* and their skill in making use of the drug substances and the drugs in an efficient way in treatment of the diseases. They noted down the rich *materia medica* available here and their medicinal usage in their accounts which were translated into many European languages even by the sixteenth century. But it was not the case with the British. They started industrial revolution and achieved wonderful successes in the pharmaceutical methods. They started criticising the Indian systems and sciences as mere superstitions. This created an ill-feeling in the minds of Indian scholars who were already in a chaotic condition due to lack of patronage. They followed a policy of "Touch me Not" not knowing what to do. They were not in a position to develop their science keeping in view the modern developments as there was no patronage. Secondly, they reluctant to receive the ideas of the people who looked down and rejected the scientific basis of their system. It resulted in the stagnation of the science which produced blasted fruits exposing to further criticism and ridicule. The nation started losing self-confidence. Though attempts were made to revive the indigenous medicine, they were not wholesome. Indian scholars in indigenous medicine should inculcate interest and faith in the system in the minds of the students by teaching in the regional languages the root-doctrines. The research work which contributed for the development of the system till seventeenth century should be revived and continued with new approaches keeping in view the modern developments. We should keep in mind the words of Caraka who says, "The whole world

is the teacher for the wise” and the policy that was followed by the ancient and the medieval scholar-physicians.

The present study is somewhat a challenge to be undertaken by a student of History since much of the source material belongs to the science of medicine. Yet it is felt that such studies should be undertaken as some sciences like Ayurveda has indispensable relation with the life of man. As Caraka opines “Health is the main means to achieve the development of the ethical, economic, artistic and spiritual aspirations of man”. The wealth of a country depends not merely on the existence of natural resources, but on the capacity of the people in making use of them and in moulding them contribute for the human development. Indians even in the ancient times were very active in identifying the qualities of the things around them. Many medical practitioners dedicated their lives for the welfare of the human-beings. They identified the qualities of substances that we take in diet and drugs and their influence on our health and disease. They made research in preparing many kinds of drugs with herbs and minerals. They identified the new diseases which appeared in the society in course of time with minute details and invented remedies to them.

Some people asked me why I have chosen such a topic while there are so many topics to be covered in History. But I wonder why such an idea that it doesn't come under history has arisen in their minds. One may feel that it is the task of the people in the concerned subject to study the history of its beginnings. But it is not correct. It is also the responsibility of the historians to supply a historical observation of such studies. For example, if we take the chronology of the inventions, it cannot be done scientifically without the assistance of a historian. A researcher in history can better do the job of identifying the dates of scientists with the help of historical sources such as inscriptions literary sources like scientific, religious and general literary works, dandakaviles, chronicles, travelogues, etc. The identification of the date and place of the scientist helps us in tracing the developmental stages with more accuracy. Another merit of the study of the development of sciences is that we can get more information with regard to socio-economic and religious history. For example, we get a considerable volume of source material in medical works with

regard to the economic history as they refer to the weights and measures and a glimpse into the trade that prevailed in the drug-substances. During the ancient and the medieval days, medicine developed on the pandal of religion. That's why, the medical works reflect the religious conditions of the period. Hence I felt excited while working for the study and found it very interesting though I did not expect such a richness in the historical data in medical works. An attempt is made in this study to observe the method of training, the educational institutions where medicine was taught, the status of a physician in the society, his role in the promotion of ethics in the society, the medical practices among the common people, economic factors involved in the collection of drug substances, preparation of drugs, trade in the drug-substances, religious ideas, social customs and traditions and their medical relevance, etc. were observed and presented in this study. As it is a new aspect undertaken in history, I may be excused on that ground for my errors in dealing with the things. I will be pleased to receive the suggestions and criticism from the scholars.

I am indebted to Prof. Sarojini Regani (Retired Dean, Faculty of Social Sciences, O.U.) for her kind interest and encouragement in the selection of the present topic. When I first presented a paper in A.P.History Congress in Kakinada on "Ayurveda in Medieval Andhradesa", she advised me to take this topic for Ph.D and gave valuable suggestions. It is my proud privilege to have had the opportunity of working under the supervision of Prof. Y. Vaikuntham, Dept. of History, Osmania University, for my Ph.D. I am grateful to him for his valuable guidance and enduring patience throughout. I also owe a debt of gratitude to Dr. B. Rama Rao, Asst. Director in Achanta Laxmipati Memorial Centre for Research in Ayurveda & Siddha, Madras, who is scholar in the history of Ayurveda. He allowed me to make use of the office library and gave reprint articles while he was working in the Indian Institute of History of Medicine, Hyderabad. I express my great regards and gratitude to Prof. K. A. Basavaraja, Dept. of History & Archaeology, Karnataka University, Dharwad, who encouraged me with valuable suggestions throughout this work. I am very deeply indebted to Sri. C. Govinda Reddy, Librarian, Indian Institute of History of Medicine, who put at my disposal the useful

and relevant material and helped me in completing the collection of the source material easily and within a short period. My thanks are due to the librarians in the General and Seminar libraries, O.U., librarian in the office library of the Director of Archaeology & Museums, Hyderabad and the staff of the Regional Library, Warangal. I cannot ofcourse, forget the help rendered by the Curator, Govt. Oriental Manuscripts Library, Madras, and the Sanskrit pandits in that office while I was working there for the present work.

Without the immense help of my father Sri P.Sitarāmaiah, a scholar in Telugu and Sanskrit, I could not have ventured on this work. My husband Sri D. Prasada Rao and my brother Mr. P.Partha Saradhi extended their help in every stage of this work.

I am grateful to Sri. G.S.Madhava Rao, C.A., correspondent of our College, for the encouragement he has given me during the research work. I thank Dr. C.Vidya Rani, Principal of our college and all my colleagues who inspired me and extended co-operation in every stage.

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Warangal,
January, 1993

P.HYMAVATHI

TRANSLITERATION

The following are the Roman Equivalents of Nagari Letters used in this book.

अ	a	क	k	इ	ḍ	ब	b
आ	ā	ख	kh	ई	ḍh	भ	bh
इ	i	ग	g	ऋ	ṛ	म	m
ई	ī	घ	gh	त	t	य	y
उ	u	ङ	ṅ	थ	th	र	r
ऊ	ū	च	c	द	d	ल	l
ऋ	ṛ	छ	ch	ध	dh	व	v
ए	e	ज	j	न	n	श	s
ऐ	ai	झ	jh	प	p	ष	sh
ओ	o	ट	t	फ	ph	स	s
औ	au	ठ	th			ह	h

Anaswara ṁ

Visarga ḥ

GLOSSARY

agadatantram	= toxicology
agni	= fire
agnikarma	= cautery
ākāśa	= space, ether
āmla	= acid, sour
anga	= limb, part
anjana	= collyrium, eyesalve
āsava	= fermented liquor
ashta	= eight
ashtaṅga	= consisting of eight parts
bhagandhara	= an ulcer or sore in the genital parts
bhūta	= an element
cikitsa	= treatment, therapeutics
dhātus	= constituents
dōṣas	= the vitiated humours
drava	= liquid
gandha	= odour
gandhaka	= sulphur
guṇa	= quality
guru	= heavy
kāntamu	= a kind of stone used in medicines
kapha	= phlegm

kaṣāya	= astringent
kāsa	= cough
kaṭu	= pungent
kṣaya	= consumption
laghu	= light
lavaṇa	= saline
lōha	= iron
madhura	= sweet
madhumēha	= diabetes
manda	= inactive
maṇiśila	= red sulphuret of arsenic
masūrīka	= small-pox
mr̥du	= soft
nāḍīparīkṣa	= pulse examination
nidāna	= diagnosis
pitta	= bile
pūrvarūpa	= premonitory stage of a disease
rājayakṣma	= tuberculosis
rasa	= taste
rasa	= mercury
rasāyana	= a kind of medicines prescribed to gain rejuvenation
rūkṣa	= dry
rūpa	= colour
sābda	= sound

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sannipāta	= a sort of paralytic disease, delirium, convulsions, hysteria.
śārīra	= anatomy
silāzīt	= bitumen
śīta	= cold
snigdha	= viscous
spatīka	= quartz
sparsā	= touch
sūkṣma	= penetrative
sūtra	= principle
tālaka	= yellow sulphuret of arsenic
tantras	= treatises dealing with special branches of any subject.
tīkṣṇa	= active
tikta	= bitter
upavāsa	= fasting
upavēda	= subordinate to or addenda to the principal veda
uṣṇa	= hot
vājīkaraṇa	= making one potent or virile
vāta	= air, bai
vipāka	= taste after digestion
vīrya	= energy of a substance
visūcika	= cholera

FS	: <i>Further Sources of Vijayanagara History</i> , K.A.Nilakantha Sastri and N.Venkata Ramanaiah
GOML	: Government Oriental Manuscripts Library, Madras.
IHM	: <i>Manuscripts available in the library of Institute of History of Medicine</i> , Hyderabad.
JAHR S	: <i>Journal of the Andhra Historical Research Society</i> .
MAR	: <i>Mysore Archaeological Report</i>
NDI	: <i>Nellore District Inscriptions</i>
OIB	: <i>An Alphabetical list of Manuscripts in the Oriental Institute</i> , Baroda.
OLM	: <i>Catalogue of Manuscripts in the Oriental Library</i> , Mysore.
SAOU	: <i>List of Sanskrit Medical Manuscripts in the Sanskrit Academy</i> , Osmania University prepared by B.Rama Rao.
SII	: <i>South Indian Inscriptions</i> .
SRSVS	: <i>Sri Krishna Rayandhra Sahitya Vijnana Sarwaswamu</i> .
SS	: <i>Susruta Samhita</i> .
TTDI	: <i>Tirumala Tirupati Devasthanam Inscriptions</i> .
VNPR	: <i>Vemana Niti Padya Ratnavali</i>
VP	: <i>Vemana Padyalu</i>
VPR	: <i>Vemana Padya Ratnakaramu</i>
VR	: <i>Topographical Inscriptions of The Madras Presidency</i> by V.Rangacarya.
VV	: <i>Verses of Vemana</i> .

ABBREVIATIONS

A Des.Cat.Tel.Mss.	: <i>A Descriptive Catalogue of Telugu Manuscripts</i> , Government Oriental Manuscripts Library. Madras.
A L M	: <i>A Catalogue of the Sanskrit Manuscripts in the Adayar Library.</i>
Amukta.	: <i>Amuktamalyada</i>
A R E	: <i>Annual Report on Epigraphy.</i> Madras.
A R S M	: Typed list of Manuscripts in the Library of the Arsha Rasayana Sala, Muktyala (A.P.) prepared by Dr.B.Ramarao.
B O R I	: Descriptive Catalogue of the Government collections of the Manuscripts deposited at the Bhandarkar Oriental Research Institute compiled by Har Dutt Sarma.
Briggs	: Translation of Ferishta's <i>History of the Rise of Mahammedan Power in India.</i>
Bulletin D H M	: <i>Bulletin of the Department of History of Medicine.</i>
Bulletin IHM	: <i>Bulletin of the Institute of History of Medicine.</i>
Bulletin I I H M	: <i>Bulletin of the Indian Institute of History of Medicine.</i>
C C R I M H	: Central Council for Research in Indian Medicine and Homeopathy, New Delhi.
CS	: <i>Caraka Samhita</i>
C S C L	: <i>Descriptive Catalogue of Sanskrit Manuscripts in the Library of Calcutta Sanskrit College, Calcutta.</i>
E A	: <i>Epigraphia Andhrica.</i>
E C	: <i>Epigraphia carnatica.</i>
E I	: <i>Epigraphia Indica.</i>
F E	: <i>A Forgotten Empire</i> by Robert Sewell.

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CHAPTER I

Introduction

The indigenous system of Indian medicine is known as *Āyurvēda*. Etymologically *Āyu* means life or the union of body, its organs, energy and soul. *Vēda* means to know or to attain. *Ayurveda*, therefore, is the science by the knowledge of which life can be prolonged or its nature understood.¹ There is actually no *veda* called *Ayurveda*. But it is an *upāṅga* of *Atharvaveda* having eight branches known as: 1. *Śalyatantra*, 2. *Śālākyaatantra*, 3. *Kāyacikitsa*, 4. *Bhūtavaidya*, 5. *Kaumārabhṛtya*, 6. *Agadatantra*, 7. *Rasāyanatantra* and 8. *Vajikaraṇatantra*. It is because of these eight branches that *Ayurveda* is sometimes known as *Aṣṭāṅgāyurvēda*.

The aim of human life is to achieve the four *puruṣārthas* i.e., *dharma*, *artha*, *kāma* and *mōkṣa*. If one is not healthy, he cannot achieve anything in life. That's why health is believed as the main means to achieve any aspiration and as the greatest and the most valuable wealth in human life. The part played by the art of healing is recognised and developed through the ages. Indicating the importance of the science of medicine in achieving the welfare of the human beings, Ugrādityācārya named his medical work as *kaṣyānakāraka*. Not only the educated urban people but also the common folk in the *janapadas* accepted the importance of medicine and believed that one should not reside in a village where there was no physician. Both the rulers and the ruled contributed for the development of the art of healing. The rich forest and mineral products also indirectly encouraged the establishment and development of the medical centres in this region. As a result of it, Andhradesa stood in the forefront in

1 *Bhāvaprakāśa*, Pūrvakhaṇḍa, I-3.

the field of research work done in the indigenous medicine during the medieval period.

EVOLUTION OF MEDICINE

Health care and attempts for relief in disease are as natural as eating food in case of hunger among the human-beings as well as animals. We see dogs, cats, pigs, etc., sometimes eat grass and vomit, remain fasting or sinking upto the neck in the water-pools when they feel ill or to get relief from illness. It indicates the fact that the sense of knowledge about the protection of life naturally developed in these living-beings. This sense of knowledge is more in case of human-beings. Therefore in every aspect of human development, we can observe many stages. The man observed the changes in climatic conditions and tried to withstand against the extremities in different seasons. He learnt to change food habits, dressing, etc. in accordance with the seasonal changes. After sometime, they might have observed that the sexual habits also should be regularised and should be restricted to the couples for the healthy developments in the society. As a result of it, the institution of marriage came into existence. The heads of the social groups who were believed to have had good knowledge about the natural and supernatural powers might have framed certain rules and regulations with regard to marriage. Marriage between the members of the same family must have been prohibited to avoid the union of the same blood group. As a result of it, new members were welcomed into the family and the relations among many families became closer, thus creating a healthy atmosphere in the society.

The primitive man must have observed that some leaves, flowers, fruits, roots, etc., are good to be taken and some others cause vomitings, stomach-ache or some such disorders. Those observations might have helped him to vomit anything poisonous taken by his fellow-beings accidentally. This kind of experience and observation must have sown the seeds of knowledge in the science of medicine. Gradually, they developed new methods in the cultivation of a variety of vegetables, food grains, herbs and in the cooking methods also.

Their women used to collect and store various kinds of fruits, roots, flowers, herbs, honey, musk, civet, the fat and the gall of various animals, etc., for the ready use in the family, especially honey and cow-milk were used. Honey was also used to preserve fruits. The gall of certain animals was identified as good medicine in case of some diseases. Valuable herbs and other drug substances were presented to the priests in the ancient societies who were believed to be the representatives of the God. These priests or wizards used to prepare drugs by grinding, sieving, preparing pills or decoctions, etc. They used to give them to the patient along with some incantations. The mortars, grinding-stones, wooden sieves etc., found in the caves and excavations hints this fact.

The remains of Indus valley civilization (about 3000 B.C.) reveal the fact that the people maintained good sanitation and cleanliness for the upkeep of the community health. The two cities Harappa and Mohenjodaro had well-laid out streets, supplied by feeder streets, bye-lanes and underground drains. Many houses had wells, bathrooms, latrines and swimming-pools. There was a public bath found in Mohenjodaro with many rooms, platforms, staircases and a swimming-pool. Houses were built on an elevated plat-form, with windows for good ventilation. Thus it reveals the fact that there must have been existed a well-organised municipal administration which was very particular about the public-health and sanitation.

With the gradual development of religious ideas the people also began thinking about the supernatural causes of the diseases. Even the relics of Indus Valley civilization give some clue to the religious ideas of the people. They worshipped the Mother-goddess and the Lord of Beasts who appears in the Yogic posture. There is also evidence of some form of phallic worship, with the representation of male and female generative organs, of tree-worship in which a deity is shown in the branches of the sacred fig-tree or pipal, still regarded as a holy tree. The worship of the Mother goddess in the epidemic diseases was prevalent in the ancient and the medieval days and still continued to the present day.

Rigveda and *Atharvaveda* reveal the knowledge of medicine in vedic period. In *Rigveda*, can be found scattered some occassional references to diseases and their cures. It is *Atharvaveda* that mainly

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deals with medicine. That's why, Ayurveda is considered as an *upavēda* to *Atharvaveda*. *Atharvavedic* medicine is a magico-religious medicine. Dr. P.Kutumbaiah explains the difference between the primitive medicine and the vedic medicine thus:¹ "In vedic medicine, we notice this separation between the magico-religious elements and empirico-rational elements. In *Atharvaveda* (II.9.3), we read that there were hundreds of medical practitioners and thousands of herbs, but what can be done by these can be effected by binding an amulet with the particular charm of this verse. Thus it would appear that the practice of pure medicine by professional medical men had already begun." Thus there existed two systems of medicine side by side. They are: 1. the systems of charms prescribed by the Atharvan (preist-physician); and 2. the system of drugs prescribed by ordinary medical practitioners. It seems that the vedic texts tried to establish a stronghold of religion on medicine. Hence the system of charms was prominent, and while that of drugs held a subordinate position.

The period of Brahmanas and Upanishads (800-600 B.C.) is considered to be an epoch of mental ferment. As a result of the new ideas and theories developed during and after this period, there developed rationalism in every sphere of civilization. The origin and spread of Jainism and Buddhism in sixth century B.C. also influenced the thinking of the intellectual class. Gradually the system of drugs seems to have broken loose from that of charms and began to develop independently. By the time of Brahmanas and Upanisads, there were only four branches in Ayurveda i.e., *Bhūtavaidya*, *Sarpavaidya*, *Rasāyana* and *Vājīkaraṇa*. During the transition period, four other new divisions came into existence viz., *Śalya*, *Śālākya*, *Kāyacikitsa* and *Kaumārabhṛtya* and are allied to Ayurveda. Medicine has become empirico-rational. This change is attributed to the influence of the new schools of philosophy. Anyway it is observed that the science of medicine changed its shelter from the shadow of religion to that of philosophy.²

1 Dr.P.Kutumbaiah, *Ancient Indian Medicine*, Orient Longmans, New Delhi, 1962, p.xiv.

2 P.Kutumbaiah, p.xvii.

According to tradition, Ayurveda is taught by Brahma after recollecting from his memory to Prajapati, "Lord of the Creatures". From him, the knowledge descended to two Aswini Kumaras and then to Lord Indra. Indra taught the Science of Medicine to Ātreya and the science of Surgery to Dhanwantari. This may be taken to mean that Ātreya, the physician, and Dhanwantari, the surgeon were the first founders in their respective departments of medicine as a science. Ātreya is believed to have belonged to sixth century B.C.¹ Then follows the Saṁhita period. The Saṁhita period is considered as the creative period of Indian medicine. The important Saṁhitas are: Caraka Saṁhita, Susruta Saṁhita and Bhēla Saṁhita. These saṁhitas are studied and followed by the scholars in different places and in different ages. Next follow the works of Vagbhata and Mādhava. Vagbhata's *Aṣṭāṅgahṛdaya* and Madhava's work *Mādhavanidāna* also gained great reputation in the field of medicine. There is a saying in Sanskrit² which shows that in *Nidāna* (diagnosis) Mādhava; in *Cikitsa* (treatment), Caraka; in *Śarīra* (anatomy), Susruta; and in *Sūtra* (principles), Vagbhata are the best.

In South India, there is another system of medicine known as *Rasa Siddha* system of medicine. It seems to be very much related to tantric medicine. It is believed that it is emanated from Lord Śiva. The founder of this school is Agasthya who belonged to sixth or seventh century A.D. Tamilnadu is believed to be the centre of its origin. Later it spread to Andhra, Karnataka and Kerala. In Andhra region, Nagarjunakonda, Srisailam and Daksarama and Alampuram were the famous centres of *rasasiddha* system of medicine.

¹ P.Kutumbaiah, p.xviii.

² निदाने माधव श्रेष्ठः
चिकित्से
शाश्वते सुश्रुत श्रेष्ठः
सूत्रज्ञाने तु वाग्भटः

ANDHRA TRADITION WITH REGARD TO THE ORIGIN OF THE SCIENCE:

In Andhra, various religious sects claimed the origin of Scientific medicine from the Lord of their respective Faith. The Vaiṣṇavas worship Dhanwantari, the incarnation of Viṣṇu as the Lord of Ayurveda. He is believed to have emerged from the ocean of Milk at the time of churning by the *Suras* and *Asuras*. In the works of the Telugu poets, we find many references to the description of the birth of Sridhanwantari. In *Āndhra Mahābhāgavatam*, it is mentioned that Lord Dhanwantari emerged from the ocean of milk with the *amṛtakalaśa* in his hand.¹ In *Haravilāsamu*, Srinatha describes that Dhanwantari, the first physician, emerged for the health and well-being of all creatures, with leeches and *haritaki* in one hand and *amṛtakalaśa* in another hand.² A carving on the ceiling of the Ramappa temple seems to be the exact depiction of the above verse. The saiva physicians worshipped Siva as Vaidyēndra. In *Sivarātrīmāhatmyam* it is mentioned that Lord Sadāśiva revealed the eighteen branches of learning including Āyur to Brahma,³ the creator. All the Rasa Śāstra works deal with the subject as revealed either by Śiva or Pārvati or by both. *Arkaprakāśa* is mentioned as the work written by Rāvaṇa who learnt the science from Pārvati.

Samantabhadra school of Medicine was followed by the Jains and the Buddhists who denied the use of substances in the preparation of drugs. They propagated the theory of non-violence even in the medical practice. But they did not discourage surgery.

Ugrādityācārya, the Jain physician of Andhra describes the Jaina tradition regarding the origin and transmission of knowledge of medicine thus:⁴ "The first Tīrthankara Ṛsabhanātha, the fountain head of all knowledge, a *Sarvajña*, was approached by Bharata and other Jaina sages, with a request to impart to them the knowledge of science of life. Then, the protector of those who seek refuge, in-

1 *Andhra Mahabagavatamu*:

2 *Haravilasamu*, VI-83 & 84.

3 *Sivaratrimahatmyamu*, 1-52.

4 *Bulletin, IIHM*, Vol.II (4), 1964, pp.203-204.

“భూరి యోగ భాగ భక్త ధన్వంతరి
యనగ సమృథి కలక హస్తాడును
నిజుల వైద్య శాస్త్ర నిపుణుడై యుద్ధేరి
వేల్చి వెట్ల కడలి పెడలి వచ్చె.”

structed them in the science of health and disease. On the basis of his lessons, these sages wrote different treatises on different branches of the science of Health and medicine. According to Jaina tradition, all revealed knowledge was divided into 12 divisions, there were fourteen sub-sections and one of these 14 sub-divisions, was 'Prāṇavāya', a word which means 'Science of Life', and is described as a 'Science which deals with body and its disorders and their treatment according to eight divisions of Ayurveda, nature of the five fundamental principles (*Panca Bhūtas*) of matter, treatment of mental disorders and bites of rabid animals and the science of 'airs', regulation of breathing (Yoga), etc."

"It is on the basis of this original work, 'Prāṇavāya' that subsequently Jain teachers and writers propagated science of Health and Medicine among the people."¹

The siddha school of medicine which is believed to have taken its roots in Tamilnadu spread through out the south and rose to its heights in Andhradesa during the medieval. As sage Agastya was the founder of this system, it was known as Agastya sampradāya.

The sages associated with Ayurveda like Atri, Ātrēya, Jātukarṇa, Agastya, Parāśara, Bharadvāja, Gargya and Divodasa are commonly mentioned both in medical and non medical works of this period. Dākṣarāma is mentioned as an abode of several sages like Atri, Ātrēya, Agastya, Parāśara, Gargya, etc.² The other names of the sages mentioned above are also referred in many literary works of the period.³

INFLUENCE OF GEOGRAPHY ON THE DEVELOPMENT OF MEDICINE IN ANDHRADESA

The climatic conditions of a country depend on its geographical formation. The crops and other products of the region naturally depend on the climatic conditions prevailed there. The dietetic habits

1 *Bulletin, DHM*, vol.II (4), p.203.

2 *Basavapurānamu*, VI-75.

3 *Haravilasamu*, V-54; *Kasikhandamu*, I-111; *Basavapurānamu*, II-98.

of the people, their clothing, their customs and traditions also can be observed as in accordance with the climatic conditions of the region. Thus geography plays an important role in the formation of the culture of a certain region. Ayurveda gives preference to the prevention of disease rather than treatment. Hence we can see that the indigenous medical scholars explained the *dinacaryā* and the *ṛtucaryā* according to which one was expected to safe guard his health by following a good regimen. *Ṛtucaryā* mentions that one should modify his dietetic habits, bath, clothing, ornamentation, etc. in accordance with the change of seasons. The regimen prescribed in health and disease was also in accordance with their availability of the goods in that region. Next to the Himalayas and the Punjab, the Andhra region was famous for its rich medicinal substances during the medieval period. That's why, almost all the medical scholars of the period visited this region especially the region surrounding Nallamalai hills.

Andhradesa is located in between 12° - 14° - 19° - 15° latitude and 76° - 50° - 84° - 45° longitude. Much of its land exists on the Deccan plateau and its coastal region extends from the Bay of Bengal to the eastern ghats. Being located in the centre of the country, it acted as a catalyst in synthesizing the Aryan and Dravidian cultures into an unique form. It gave shelter for the Aryan saints who migrated here and served as a main ground for their activities in bringing about unity in the cultural trends of the people from the Sētū to the Sītāchala. Viśwāmitra, Āpasthaba, Kātyāyana, and Agasthya are said to have participated in the sacred task of unifying the two different cultures. Participated in the sacred task of unifying the two different cultures. They added many cultural and scientific achievements of the Dravidians to that of the Aryan culture and tried to bring about the mutual understanding among the scholars of different regions. The satavahanas and the Kakatiya kings also extended their helping hand in this regard to the scholars who approached them irrespective of their regional affiliation. During the medieval days, when Hindu religion and culture suffered due to the Muslim invasions, the Reddi and the Vijayanagara rulers took up the task of safeguarding the Hindu dharma as their main responsibility. They gave shelter to the

scholars who came with their wealth of wisdom and patronaged them with the munificent gifts of land.

Having a large coastal line, thick forests, many hills, a well-watered and a fertile region and with a variety of flora and fauna, Andhra region developed its culture in an unique way. Nearness to the sea, encouraged the Andhras to develop the sea-faring activities. Through the ports of Mōṭupalli, Pulicat, Masulipatnam, Kaṭingapatnam, Nāgapatnam, etc., the merchants of Andhradesa sailed out for centuries along with their merchandise with the products of far off countries. The epigraphical and literary sources inform us that the trade was mainly done in the medicinal goods and the spices. Many medicinal substances were carried by the merchants of Andhradesa such as Apaci Tippayacēṭṭi, Dēvaya Ceṭṭy, Cāmiseṭṭi, etc. They brought some new and valuable substances from those countries and introduced in this region. As a result of it, the exchange of views also became inevitable with the exchange of goods. Thus the merchants of Andhra region played a vital role in the exchange of views with regard to medicine especially in case of materia medica. They introduced many of our medicines in the foreign lands and brought many new medical substances from the other places. The hill ranges and the forests also played a vital role in the development of the science of medicine in Andhradesa. Though eastern ghats also penetrated into Andhra country, the chief ranges of hills in this region are the Eastern ghats. The hill ranges in Śrīkākuḷam are known as Mahēndragiris. At Viśākhapaṭnam, these are called as Pālakonḍalu, Nīlagiri, Rāmagiri and Anantagiri. Rāmagiri was a famous Jaina centre till 9th century A.D. where several scholars like Ugrādityācārya resided. The godavari, the Krishna and the Penna break through the eastern ghats, which are called as Pāpikonḍalu. To the South of the Krishna, extend the Nallamalai hills which are famous for their flora and fauna. The famous medico-religious centres such as Srisaīlam, Tripurāntakam and Ahōbilam are situated on these hills. In Bezawada, on the bank of the Krishna, there is Indrakiladri which is mentioned by Srinatha, the Telugu poet, as a mine of rich materia medica. In Palnadu area, there are several hills - Ganikonḍa, Nāgārjunakonḍa, Bellamkonḍa, Kōṭappakonḍa, Konḍaviḍu, Uṇḍavalli, Mangalagiri, Vinukonḍa and others. To the West of the Nallamalai hills, there are Yerramalai hills.

To the east of the Nallamalais, are the Velikonḍalu. In the Chittore district are the Śēṣhāchalam hills. The famous pilgrim centre Tirupati is located on these hills. During the medieval days, there was a big forest on these hills having many animal and herbal substances used in the preparation of medicines. Thus we can find that almost all the hills were famous religious centres. As they were endowed with rich medical substances, they developed as the great medical centres also. In the forests around these hill ranges, there lived some aboriginal tribes who were experts in identifying the herbs. Many of them led their lives by selling the drug-substances and spices. The Andhra country is rich with its fertile soil as there are many rivers flowing, the Godavari, the Krishna and the Penna being the main rivers. There are thirty other rivers. The Godavari is the biggest originated at Nasikatriambak (Maharashtra), it flows across the Deccan plateau and reaches Bhadrachalam. It flows for about 400 km. and reaches Bay of Bengal. Manjira, Prāṇahita, Śābari, Indravathi are its main tributaries. The Godavari splits into seven while flowing across the Papikondalu. They are Tulyanaga, Ātrēya, Gautami, Vriddha Gautami, Bharadwāja, Kausika and Vasiṣṭa. All these are combinedly known as Saptagōdāvāri. The area fed by the Godavari is endowed with forests which are rich with a variety of flora and fauna.

The river Krishna whose place of origin also is Maharashtra, flows through Andhradesa extending for about 450 km. It reaches the ocean near Hamsalādīwi. The Tungabhadra, Musi, Bhīmarathi, Ghaṭaprabha and Malaprabha are its chief tributaries. The river Penna, born in Mysore State flows through Anantapur, Cuddapah, Kurnool and Nellore districts and reaches the ocean near Utukur (Nellore district). Another river of importance is Vamsadhara. It is born in the eastern ghats in Orissa and flows through Srikakulam in Andhra and reaches the ocean near Kaṭingapaṭṇam. There are many other minor streams such as Bahudā, Śārada, Lāṅgulya, Guṇḍlakamma, Kinnersāni, Swarnamukhi, etc. These rivers helped to irrigate millions of acres of land. These rivers were the means of transport of goods in the inland trade. The delta area proved good to cultivate the new crops such as tobacco, battai, chills, papaya, etc. which were brought to South India by the Portuguese and the British traders. Many other medicinal plants such as phirangi, opium, khurāsānivāmu, etc. were

planted for the medicinal usage. The famous temples of Andhradesa were constructed on the banks of the rivers so as water can be at hand. According to *Rasasāstra*, the *rasasiddha* centres must be constructed at a place where there is water in abundance. Alampuram, a great *rasasiddha* centre is built on the banks of the river Tungabhadra. Likewise, the temples at Kālēśwaram and Bhadrachalam on the banks of the river Godavari, the temples at Amarāvati and Śrīkākuḷam on the banks of the Krishna.

Thus the geographical conditions of Andhradesa also helped in preparing a ground for the development of this place as a famous and great medical centre in India.

THE PERIOD UNDER STUDY

The period under study (from fourteenth century A.D. to seventeenth century A.D.) is a significant phase in the annals of South Indian History. Though the beginning of fourteenth century witnessed many tragic incidents due to the Muslim invasions, the consequent period proved itself sooner to be a glorious one with a rejuvenated culture. The first quarter of the fourteenth century is a gloomy period in the history of South Indian Hindu kingdoms. The kingdoms of Devagiri and Dwarasamudram disappeared from the political scene due to the Muslim invasions. The great Kakatiya kingdom which ruled over the Andhradesa for more than three centuries and rendered conspicuous services to the Andhras, collapsed in A.D. 1323 and the people fell prey to the cruelty of the Muslim chiefs and soldiers for sometime. Sources inform us that by A.D. 1324, the coastal Andhra also came under the Muslim rule. Under their rule, the people of Andhradesa faced many difficulties. Hindu priests and saints were tortured. The temples and the mathas which were great centres of social life lost their patronage. Trade, commerce and agriculture came to a standstill. It is only after the complete capture of the Andhra regions by the Reddi, Velama and Vijayanagara kings that the Andhras breathed an air of safety and certainty. The chiefs of Musunuri, Reddi, the Velama families and the two brothers Harihara and Bukka liberated the Andhras from the muslim rule and founded new dynas-

ties in the first half of the fourteenth century. Thus the period from the starting of the Muslim invasions into the Kakatiya kingdom i.e., A.D. 1303 till the establishment of the new dynasties in Andhra, was a crucial period. The newly emerged dynasties encouraged every field of human development like agriculture, trade and fine-arts and sciences like Ayurveda. As a result of it, the science of medicine also developed in its own way. Medical works in Telugu with new theories and research began appearing. That's why the present study deals with the starting of this remarkable century.

The starting of fourteenth century inaugurated a new era in the history of Ayurveda in Andhradesa. The Ayurvedic students used to study the medical texts in Sanskrit. The scholars also composed the medical treatises in Sanskrit only till thirteenth century in this region. Commentaries on the classical medical works started appearing later on. Some of the classical works were also translated into Telugu to facilitate the need of the students and the development of the science. A Sanskrit work namely *Cārucaryā* which was written by Bhojaraja of Andhradesa at about 1300 A.D. was translated into Telugu by Mantri Appana. It is the first Telugu medical work in Andhra. From the middle of fourteenth century many commentaries were written in Telugu to Sanskrit medical works. During fifteenth and sixteenth centuries many independent medical works were written in Telugu as well as in Sanskrit. Not only in case of the works in Telugu but also in the Sanskrit works, there appears a striking feature. It is the emergence of the original medical works. Until eleventh, twelfth and the early thirteenth centuries only the classical medical works of the ancient *triad* and *Mādhavanidāna* were studied and followed. It is from the end of thirteenth century or mostly from the starting of the fourteenth century independent medical works in Sanskrit were written by the Andhra scholars which attracted the attention of the scholars all over India. Thus fourteenth century is remarkable in the history of medicine also in Andhradesa.

Again the closure of the seventeenth century is marked by some significant events - the advent of the Muslims and the western influence in this region. By the close of the reign of Mohd Quil Qutubshah (A.D.1612) almost the entire Telugu provinces went under the

sway of the Qutubshahis. The authority of the Rayas was limited to a few districts. And by A.D. 1687, the Mughals annexed the Golconda kingdom also and established their sway over it. All these political developments resulted in the evil consequences. One of the tragic effects was the liquidation of the middle class nobility which threw the physicians into miserable position.

By this time, the foreign influences started appearing on the Indian medicine. The influence of Unani can be seen early in the sixteenth century itself. The Portuguese who came to India for trade and who established their settlements in the South employed European doctors in their hospitals. In course of time, the native rulers also were attracted by the new system of medicine. Thus by the close of seventeenth century, the European system of medicine started to gain its popularity. Therefore the study closes with the observation of the medical conditions till seventeenth century A.D.

POLITICAL CONDITIONS AND THE STATE OF AYURVEDA

After the fall of the Kakatiya dynasty in A.D. 1323, the Muslim rulers held sway over Andhradesa for a short period which according to the sources proved to be "a brutal rule".¹ Anyway many chiefs who were nayakas under the Kakatiyas tried teeth and nail to drive away the Muslims from this region and succeeded in their efforts. But the political unity of the Telugu country received a severe blow due to their selfish motives. Musunuri Kapayanayaka founded the Musunuri Nayaka kingdom at Warangal in A.D. 1325. But due to the disunity and jealous attitude of the Andhra nayakas, Kapaya's efforts to re-establish a formidable Andhra country, Warangal as its capital, failed. In A.D. 1368, the Recerla chief Anapotanayaka killed Kapayanayaka and thus the Musunuri chiefdom came to an end. It was annexed by the Recerla chiefs.

The Recerla chief Singama Nayaka founded an independent state, Racakonda as its capital in A.D. 1325. But it was occupied by the Bahamani Sultans in A.D. 1474.

Prolaya Vemareddi succeeded in driving away the Muslims from coastal Andhra by A.D. 1324 and established the Reddi kingdom in A.D. 1325, Addanki as its capital. Later the capital was shifted first to Kondapalli and then to Kondavidu. The kingdom was called as Reddi kingdom of Kondavidu. During the reign of Kumaragiri eddi, the king gave some part of his kingdom to his brother-in-law Katayavemareddi. Katayavema ruled the kingdom making Rajahmundry as its capital. It was known as the Reddi kingdom of Rajahmundry. Virabhadra Reddi was the famous ruler of this kingdom, who extended great patronage to the scholars in Ayurveda. Peda Komativema Reddi, who came to the throne after Kumaragiri, was himself a great scholar and extended patronage to the scholars in many sciences and languages. It was during the reign of his son Raca Vema, the Reddi kingdom of Kondavidu collapsed when a person getting angry against the imposition of the delivery-tax killed in king in A.D. 1424. The northern part of the kingdom was annexed by the Bahmani Sultans where as the southern part was occupied by the Rayas of Vijayanagara. The Reddi kingdom of Rajahmundry also fell into decay when the Gajapatis occupied its capital in A.D. 1435.

In 1336 A.D. the Sangama brothers Harihara and Bukka founded the kingdom of Vijayanagara. Four dynasties ruled over this kingdom until 1680 A.D. The Rayas of Vijayanagara gradually held sway over the whole of Andhradesa. The very aim of the establishment of this kingdom was to safeguard the Hindu Dharma and culture. Immediately after the establishment of the kingdom, the illustrious brothers Madhavaarya and Sayanacarya started their sacred work-shop and gathered many scholars in various fields to revive and facilitate the development of Hindu culture. They wrote commentaries to Vedas, Vedangas, Upanisads, Dharmasastras, Darsanas, etc. They did not leave any branch of learning untouched. Knowing about this literary movement, many scholars from the northern part of India who were neglected by the Muslim rulers there, and who felt that there was no safety for their religious as well as scientific works came to this region with their wealth of wisdom and knowledge. They were well-received

by the kings, feudal lords, the Brahamans of the Agrahara villages, the temples and the mathas. The Reddi kings and the Recerla Padmanayaka chieftains not only gave powerful support to Hinduism and Hindu culture but also patronised scholars in various branches of knowledge. Both of them took great care in maintaining public health and hygiene in good condition. They gave grants to the *parahita* physicians who served the people without taking any fees in return for their medical services. The Akkalapudi grant dated A.D. 1368 belonging to Singamanayaka testified to this fact. Especially with regard to the development of the science of Ayurveda, the Reddi kings did remarkable service. they extended patronage to the physicians by granting them lands. They took keen interest in maintaining social hygiene by taking sanitary care. They used to get the streets cleansed everyday and to get lime and salt poured into the wells and such other things. They made many grants to the temples and the mathas which were generally the learning as well as the medical centres in those days. They appointed some of the physicians who were experts in the science as royal-physicians. The Ponnupalli grants inform us that Singanarya and Bhaskararya worked as the court physicians. There might have many such scholars who worked under different kings whose names and achievements remained in darkness due to lack of sources. Anyway the Akkalapudi Kaluvaceru and Ponnupalli grants inform us that about twenty members in heirarchy belonging to parahita family served the Reddy kings and their people. Both the Reddi and Padmanayaka dynasties patronised not only Sanskrit but also Telugu. They encouraged the men of intellectual distinction with great gifts of honour. That's why scholars were very eager to gain much knowledge in many subjects in addition to their specialisation. Not only the scholars, the sons of the kings and the chiefs also took credit in acknowledging themselves as scholars in many branches of learning. This can be known from the references in the literary works. This trend continued later in the Vijayanagara period also.

Sāyana wrote *Āyurvēda Sudhānidhi*. The Brahmana Krāku grant of Harihara II refers to one Śrīgīripaṇḍia, well versed in Ayurveda. Bukkaraya I appointed Viṣṇuśarma as a physician in his court. The scholar-physician wrote a medical work known as "*Rasarājalaxmi*". Viṣṇubhaṭṭa, Dāmōdarapandita and Śārjgṇadhara were the other

scholars who served the Vijayanagara kings and their people in the early years of their reign. Bukka II encouraged his personal physician Laxmana pandita to compose a medical treatise namely *Vaidyavallabha*. There were many such scholars. From the days of Devaraya II, scholars in veterinary science such as *Aśvavaidyas*, *gajavaidyas*, etc., were much patronised though it was not a new tradition. But it is a noteworthy thing that Sāhitisamarāṅgaṇa Sārvabhauma Kṛṣṇarāya did not seem to have encouraged even a single medical scholar to compose a medical treatise. He might have appointed physicians in the royal-court as it was a must and as all the others did. But we do not find any source to know that he honoured the physicians or that he granted lands to them to make them dedicate their lives for public service. On the otherhand, we find two references in *Āmuktamālyada*. The first one indicates that a king should maintain physicians in his court and the other reveals that a king should not give gifts to the scientists and *yogis* lest they would neglect the public welfare and the people will suffer from diseases and ill-health. Here we come to know by scientists and *yogis* he meant the physicians and the *rasa siddhas*, when we observe the consequences he indicated. That's why, we get a doubt that whether he put into practice what he expressed in his work. Anyway it is a fact that he did not extend much patronage to the scholars in medicine or the physicians, as he extended to the poets. Many physicians, *rasasiddhas* and medical scholars were patronised by the temples and the mathas during sixteenth century. Sources prove that Sadasivaraya and Ramaraya patronised scholars in many fields and made gifts to the *Aśvavaidyas* as well as the *naravaidyas*. During this period, physicians enjoyed a higher status in society.

After the battle of Rākṣasatangaḍi, the Muslims started penetrating into the Telugu land. By the close of the seventeenth century (1680), the rule of Aravidu dynasty also came to an end. By this time almost the entire Telugu country came under the sway of the Qutubshahis of Golconda.

Even from the advent of the Qutubshahi rule, the rulers patronised the Telugu and Sanskrit scholars along with Urdu, Persian and Arabic. That's why there took place cultural contacts between the Vijayanagara and the Golconda kingdoms. So also we can see the impact of Unani medicine on that of indigenous system. The two

systems of medicine continued to flourish in the court of Golconda. The scholar physicians patronised by the Qutubshahis were instructed to hold discussions with the Ayurvedic scholars and compose their works making use of the Hindu medical system.¹ The Hindu physicians also learnt some new pharmacological methods from the Unani scholars. *Arkaprakāśa* which deals with the prescriptions of tinctures is the best evidence to prove it. "*Meezan al Tebaye Qutub Shahi*" by Taqui Uddin Mohammad bin Sedruddin Ali, the works of Hakimul Mulk Nizamuddin Gilani and "*Lazzatun Nisa*" of Jamiare are the examples for the works written with the impact of Ayurveda.

Following the footsteps of their sovereigns, the local chiefs under the Reddis, the Rayas and the Qutubshahis honoured the physicians in their courts. By granting lands to the learned Brahmins and appointing them as *acaryas* and physicians in the temples or mathas, the feudal lords encouraged them to extend their services to the society. Some were appointed as war-physicians in their troops. The services of the physicians were considered more essential for the functioning of the imperial war machine. With the gradual decline of the position of the local chiefs by the close of the seventeenth century, the practitioners in indigenous medical system fell in a state of chaos.

The advent of the Europeans and the establishment of their commercial centres in Andhradesa in the first quarter of the seventeenth century effected the economic and social life of the people. They established their churches and undertook social service as a means to gain more conversions. They appointed doctors who came from western countries, in these hospitals. The hospital established in Goa in the first quarter of sixteenth century is the first western hospital in India. Gradually many hospitals were constructed. In the beginning, the western doctors were very much impressed by the variety of Indian 'materia medica' and some of the wonderful methods of cure. They also introduced some other new substances which they brought from other countries like China. But from the close of seventeenth century, they started criticising the medical systems here. They made use of medicine as a means to gain conversions into Christianity in India.

1 *Bulletin, IJHM*, vol.XVI, 1986, pp.43-50.

Perhaps it must be the main cause that they started mispropagating the social and medical systems that prevailed here. They took into consideration mainly the habits prevailed among the socially backward classes who allowed the Portuguese and the other Europeans into their households. These people at any time were guided by the superstitious customs and were away from the cultural and scientific development of the society. Thus by the close of seventeenth century, the European system of medicine started to take its roots by the establishment of missionaries. As a result of these factors, the development of indigenous medicine suffered a lot and crept into stagnation.

The indigenous system of medicine gradually developed in Andhradesa during this period and reached its zenith by the efforts made by the scholars like Sarjgnadhara, Laxmana Pandita, Swatmarama, Srinivasabhatta, Vallabhacarya, Basavaraju, the Siddhas of Alampur and Srisailem and many others. The new doctrines and the cures discovered and put forth by the Andhra scholars were accepted and followed by both the South and the North Indian physicians. These achievements which enriched the cultural heritage of the Andhra region are to be brought into light.

The main objectives proposed to be studied are :

1. To decide the probable dates of the medieval medical men and their works.
2. To observe the methods of training, the ethics followed in the profession and the position of the physician in the society.
3. To discuss the developments achieved in the science of medicine during 14th c.A.D. - 17th c.A.D.
4. To observe the methods of healing among the commonfolk.
5. To view the availability of the materia medica and the trade in medicaments.
6. To evaluate the role of medicine in the society and culture of medieval Andhradesa.

Medieval medicine consists of two branches i.e., Ayurveda and Yoga. The present study deals only with Ayurveda. It excludes the study of Yoga and other systems of medicine like Unani. As it is a historical study, it does not go deep into the subject matter of the

science and deals only with the facts which help in keeping the evolution of this science in the cultural milieu of the day.

REVIEW OF LITERATURE

There are some works on the History of Ancient and Medieval Indian Medicine. The best known among them are "Ancient Indian Medicine" by Dr. P.Kutumbaiah, "Hindu Medicine" by Henry R. Zimmer, "Medicine in Medieval India" by Ms. Poonam Bala and "Folk Medicine" by O.P.Jaggi.

Dr. P.Kutumbaiah presented a comprehensive and general introduction to Ayurvedic medicine. He had divided his "Ancient Indian Medicine" into 9 chapters, with a lengthy "General Introduction" covering some 54 pages. The major portion of the work is concerned with the doctrines of classical Indian medicine i.e., the medical doctrines found in the Caraka and Susruta *samhitas*. The most interesting chapter in this work is the introductory chapter where the evolution of Ayurveda is given by the author. These pages touch upon the major notions concerning the traditional accounts, the archaeological evidence from the Indus valley, the magico-religious medicine in the *vedas* and the medical references in the *Brahmanas* and *Upanishads*, etc. But it is not much useful to those who want to see medicine in the cultural milieu of the day. Zimmer's work "*Hindu Medicine*" is a general presentation of the evolution of the ancient Indian medicine in two chapters. It is much too limited for a student who is interested in the study of the role of medicine in the culture of the day. "*Folk Medicine*" by O.P.Jaggi deals with the ancient Indian medicine to a great extent and while dealing with the medieval practices, he dealt only in North Indian context. There are some other works such as "Antiquity of Hindu Medicine" by C.Mutthu (1927) and "History of Indian Medicine" (Vols.3) 1923, 1926 & 1929) by Girindranath Mukhopadhyaya. These works tried to trace the history of Ayurveda by making use of the medical works of India.

Some scholars wrote the history of indigenous medicine in Hindi. Among them mention must be made of "Āyurvēd kâ Brihad Itihâs" by Atridev Vidyalamkar and "Āyurvēd kâ Vajjnānik Itihâs" by P.V.Shar-

ma which deal with the authors of medical works from various places of our country.

With regard to the work in Andhradesa, there is a monograph written by Dr.D.V.Subbareddi, entitled *Glimpses of Health and Medicine in Mauryan Empire* containing two parts. The work contains only references from Kautilyas *Arthasastra*, *Indica* of Megasthenese and the Edicts of Asoka which give glimpses of medicine, of the life and the changing picture of society. Under the pen-name "Krishivala", the same author wrote a work in Telugu entitled *Vaidyam - Vājmāyam*. In this work, the author tried to trace the medical practices of the day and the health care and healing art of the common people basing on the contemporary literary works. The credit of materialising the dreams of D.V.Subbareddi goes to B.Rama Rao, who worked as Asst. Director of Indian Institute of History of Medicine, Hyderabad. Dr.Rama Rao's work in this field is really commendable. Being a great scholar in Sanskrit, Telugu, Hindi and English, he is able to collect information from various sources. His articles on the source material both literary and medical are published in many volumes of the Bulletin of Indian Institute of History of Medicine. The contribution of these two scholars is helpful to a great extent to the researchers in this field.

Āyurvēda Itihāsāmu by Veturi Sankara Sastri in Telugu is a concise history of Ayurveda in India with special reference to Andhradesa. C.Sankaraiah's (from the Dept. of Telugu) work *Āndhravājmāyam - Dēśiya Vaidyam* tries to give us a picture of the medical practices prevailed in the society as reflected from the contemporary literary works citing here and there from the medical scriptures of the ancient triad. There is an unpublished dissertation work - *Jānapada Vājmāyam - Dēśiyavaidyam* by Ravindra Mani. It gives a glimpse into the healing art of the common people and the social and religious sentiments involved in it basing on the folk-lore of the period.

Thus it is clear that many of the works mentioned above dealt with the north Indian context paying lesser attention on the southern tradition which was very significant. Many of them are too general in their approach while the others concentrated in tracing the evolutionary changes in the process of the development of the science of medicine. They are based on the contemporary medical texts only.

The Telugu works are based on the contemporary medical as well as literary works but we cannot find proper importance given to archaeological sources. There is no serious work on the history of indigenous medicine in Andhradesa basing on the complete historical sources. It is aimed to fill the gap in the field and the present work is a modest attempt to study the development of indigenous medicine and its role in the society and culture of medieval Andhradesa. All the above works mentioned and many others helped on my way to research.

SOURCES

The source material available for the study of the development of indigenous medicine and its impact on the then society can be categorised as Archaeological and Literary sources.

ARCHAEOLOGICAL SOURCES

The archaeological sources pertaining to the history of indigenous medicine in the medieval Andhra can be divided into two categories i.e., inscriptions and monuments.

INSCRIPTIONS

Though the lithic records and the copper plate inscriptions giving medico-historical information of the period are few, they are conveying much valuable, authentic and interesting information. They yield many details with regard to the chronology of the physicians and of the new findings of the region during this period. These inscriptions throw light on the historicity of the authors of the medical texts and the other physicians of the period. Some of the inscriptions give information regarding the role of customs and religious elements in the field of indigenous medicine. There are also some inscriptions which testify to the encouragement given by the kings to the merchants trading in medicinal goods.

The available inscriptions of the period have to be thoroughly probed before arriving at conclusions based on the support of the information yielded by the other sources.

The Krāku grant of Harihara II dated S. 1248 (1376 A.D.) register the gift of the village Krāku to the Brahmanas for the merit of his (Harihara II) father and named as 'Bukkarāyapuram'. This copper plate grant is very much useful and it gives a list of scholars (donees) among whom we find an Ayurvedic scholar i.e., Srigiri, son of Srivalabha of Śrīvasta gōtra. He is described as the foremost among the scholars of Ayurveda and Yajurveda. This grant is of great importance for the other reason also. It mentions Sayanacarya, the vedic commentator as one of the donees. He is described as "*Vēdabhāṣyakṛt dhīmān, Māyaṇācāryanandana*, and as *Sāyanācārya*, who is the very treasure-house of *Yajurveda* and who was born in the Bharadwaja gōtra". From these details of this grant, we know that *Sāyanācārya*, the author of *Āyurvēdasudhānidhi*, the brother of *Vidyāraṇya*, lived in *Pākanāṭiṣaya* (present Nellore district) of Vijayanagar Empire.

Though the inscriptions of Akkalapūḍi (A.D.1368), Ponnupalli (two inscriptions dated A.D. 1404 & 1408 made to Bhaskararya and Singanarya respectively by Pedakomati-vemareddi), Kaluvaceru (A.D. 1423) and Kondapally, we come across the physicians known as *Parahitavaidyas*. The Akkalapudi copper plate inscription dated S. 1290, corresponding to A.D. 1368, registers a grant of Singayanayaka to his court-physician named *Parahitācārya*, who was equal to a minister in status. This *Parahitācārya* belonged to *Atreya* gotra and hailed from the family of *Kālanāthabhaṭṭa*. The Ponnupally grant of S. 1326, corresponding to A.D.1404 records the gift of a village named Ponnupally of Velanati region near Kondavidu to one Bhaskararya of *Kasyapa* gōtra. *Bhāskarārya* was described as the *Dhanwantari* of the world and was a prince among scholar-physicians. Another inscription from Ponnupally dated S. 1330 (A.D. 1408) records the gift of this village to Singanārya, the great grandson of *Periyavilla*, the grandson of *Bhaskararya* and the son of *Viḷḷayārya*.

The Kaluvacēru grant of *Anitalyāmbika*, dated S. 1345 (A.D. 1423) registers a gift of a village Kaluvaceru after renaming it as *Annavaram* to *Parahitācārya*, son of *Kālanāthabhaṭṭa*. In this grant, the servicing

nature of the family of the donee is described just as in a story. It gives information about physicians in line.

The Kondavidu inscription dated S. 1468 (A.D. 1546) refers to the gift of land to several Brahmins whose names include Parahita Panditulu, Somapanditulu, Asvavaidya Laxmanapanditulu, Timma Panditulu, etc. This inscription suggests the high position of the physicians in the society as it bears an evidence to the fact that the physicians were granted more land comparing to the other scholars.

Thus the inscriptions of Akkalapudi, Ponnupally(2), Kaluvaceru and Kondapally were the records bearing information about the Parahita physicians. The Akkalapudi and Kaluvaceru grants refer to the Atreya family of Parahita vaidyas whereas the two Ponnupally grants refer to the gotra of the donee i.e., Parahitacarya. The deviation in the *gotra* of the *parahita* physicians gives clue to the fact that all the *parahitas* did not belong to one family or one wing of the caste. The Bitragunta inscription dated A.D. 1356 helps us in identifying the historicity and date of Srikantha Pandita, the author of many medical works.

The Dākṣārāma inscription dated S. 1352 (A.D. 1430) refers to a Vaidyendra named Annayapaṇḍita. Another copper plate grant from Mancalla dated S. 1262 (A.D. 1340) refers to koṇḍubhaṭṭa, who was a great physician and was considered as an incarnation of Tānvan-tari.

Some other inscriptions such as the two inscriptions from Nandavaram in the former Banaganapally state (Karnool district) throw light on the worship of the epidemic goddesses by the people to protect them from the diseases. The Motupally inscriptions of Annavota Reddi (dated A.D. 1358) and Dēvarāya (dated A.D. 1390) testify to the encouragement given by the kings to the traders trading in the medicinal goods. The Kondavidu inscription of Nāḍendḷa Gōpa gives a list of articles of inland trade which included many medicinal goods. We find many grants made to the brahmins to enable them to impart regular instruction to the students.

Thus the available epigraphical data helps us in proving the historicity of the scholar-physicians, their chronology, genealogy, their position in the society, etc., with the help of the other information coming from the contemporary literary and medical works.

MONUMENTS

The remains of Nāgārjunakonḍa on the banks of Kṛṣṇa in the centre of Andhradesa testify to the great services of Nāgārjuna to the humanity and their sufferings. The remains of *Jwarālaya* at the university area in Nāgārjunakonḍa and the inscriptions referring to the *jwaralaya* are the ample evidences to trace the pre-medieval history of health and medicine in Andhra.

The Navabrahma temple complex at Alampur, situated on the western bank of the Tungabhadra in the present Mahabubnagar district had a mystique antiquity and it remained as a centre for *Rasasiddha* system of medicine during the medieval period. The *Rasalinga*, *Rasāśāla*, *Nagnakabandha* and the eight temples in the complex give us an idea about the metallurgical operations and the tantric practices linked with *Rasavaidya*.

The image of Dhanwantari on the wall of the Lēpākṣi temple gives us an idea that the temple might have been provided with a hospital.

THE LITERARY SOURCES

The literary records are of great help in reconstructing the medical history of medieval Andhradesa. The literary sources may be divided into two groups i.e., indigenous and foreign. The former consists of the medical texts, the general literature and the local records. The latter consists of the accounts of the foreign travellers who came from different countries.

GENERAL LITERATURE

It is a well-known fact that literary works reflect the social life of the people at any period. The available literary works which help us in reconstructing the history of health and medicine in Andhradesa can be divided into Sanskrit, and Telugu. In these works, we find reference to the description of the physician, his status in the society, various kinds of medicines, herbs, drugs etc., medical habits of the people,

their art of healing, the trade in medicinal herbs and so many other things.

SANSKRIT WORKS

Kolacala Mallinathasuri, the court poet of the Racakonda Kings, wrote commentaries on the three *Sravya kavyas* of Kalidasa and on some others. He is known to have written commentaries on the following *Kāvya*s: *Raghuvamśamu*, *Mēghadūta* and *Kumārasarībhavam* of Kālidāsa, *Sisupālavadha* of Magha, *Kirātārjunīyam* of Bhāravi, *Naiṣadhacaritra* of Śrīharṣa and *Bhaṭṭikavya* of Bhaṭṭi. In his works, Mallinathasuri gave references from medical texts also. He quoted from the works of Dhanvantari, Vagbhata, Vaidyaka, Halāyudha, Pālakapya, Caraka, Agasthya and Gajāyurvēda. Quotations from different other sources are mentioned in the works of Mallinathasuri, but many of them are not traceable. He referred to many aspects of medical science such as herbs, some diseases, pregnancy and some principles. All these reveal the contemporary medical beliefs.

Madhurāvijayamu or *Kamparāyacaritam* is a scholarly work of Gangadevi, wife of Kampana. This work not only provides useful historical information regarding the wars of kampana, but also gives a glimpse into the social conditions of the day. Though not so useful, incidentally it refers to the medical aspects also.

TELUGU WORKS

Haraviḷāsamu, *Kāśīkhaṇḍamu*, *Kriḍābhīrāmamu* and *Palnāṭivīracaritam*, the literary compositions of Śrīnātha, the *vidyādhikāri* in the court of Pedakomativemareddy are of great help in this context. In the introductory verses of *Haraviḷāsamu*, Srinatha described the encouragement given to the traders trading in spices and medical substances. He dedicated this work to a merchant prince known as Avaci Tippaya Setti. He described the trade that was maintained by Avaci Tippaya Setti and his brother Cāmicēṭṭi with other

countries. Srinatha praised Matsyēdranātha in this work and said that by worshipping the mother goddess, Matsyēdranātha and others became the authorities on Yoga. Some references from his other works *Kāśikhandaṃ* and *Palnāṭivīracaritraṃ* are helpful in tracing the health and hygienic conditions prevailed in the then society.

Navanāthacaritra of Gaurana is an important poetic work on the *natha* cult. It gives a coherent account of the lives of the *nathas* in Telugu and makes it clear that the *siddhas* and the *nathas* are identical for which we find corroboration in other sources. This work is dedicated to Muktiśānta Bhikṣavṛttīśvara, the head of the *bhikṣāvṛttimaṭha* in Srisailam. Gaurana composed this work in simple *dwipada* form to propagate the *nātha* cult among the common people on the request of his patron. The last three chapters deal with the pursuits of the *nathas* in alchemy, *parakāyapravēśa* (entering into the body of others) and the attainment of *Vajradēha*. In this work, *swarṇasiddhi* is condemned as an useless pursuit. It gives a list of herbs available in and around Srisailam. It also gives a glimpse into the practical training methods in medical education.

The references from the verses of Vēmana not only reveal his knowledge in medicine but also give a glimpse into the beliefs, customs and practices regarding the maintenance of health, hygiene and healing art of the people in the then society.

Manucaritra of Allśānipeddana describes the gymnasiums to which we find references of their existence in the inscriptions and in the accounts of foreign travellers. It describes the status of a physician in the society and gives some valuable information regarding the instruction in medical science.

Āmuktamālyada composed by Śrīkrṣṇadēvarāya is very useful as it gives the details about the royal regimen as well as the seasonal regimen of the people. It gives a glimpse into the hygienic principles that the common people followed in those days. Throughout the present work, *Āmuktamālyada* helps in testifying many facts.

Kāḷahastī Māhātmyamu composed by Dhūrjaṭi, an eminent Telugu poet who lived in the court of krṣṇadēvarāya describes some of the eye-diseases and the cures for them. We find a reference to the dietetic habits of the tribal people in it.

Kadirīpati the author of *Sukasaptati* depicted the various characters belonging to various communities of Andhradesa and these characters and their stories mirror the society of those days. This work is the best example of the Telugu literary works which reflect the social life of the people.

There are two works named *Paramayōgivilāsamu*, i.e., *Padya Paramayōgivilāsamu* and *Dwipada Paramayōgivilāsamu*. The former is not available. Only the *dwipada kavya* written by Timmabhūpati is available now. In this work, we find the description of a contemporary physician who was searching for herbs reciting Gunapatha. He is described as keeping *Bāhaṭapustakamu* in his hand. *Bāhaṭagrantha* was a medical work written by Bahatācārya. This point helps us in proving the historicity of Bahatācārya. This work also gives a list of things that came to our ports from other countries.

Hamsavimśati is a work written in imitation of *Sukasaptati*. In it, the author interpolated many lists of things used by the people of those days incidentally. Those lists included their medicines, their methods of treatment, the herbs available in the janapada shops, the things which were imported from other countries, the popular janapada medicines, etc. These lists and other information about the physicians, their knowledge and the care taken by the people in the up-keep of health and hygiene, etc. provide us valuable source of information.

The Telugu *Bhāgavatamu* of Pōtana and the Telugu *Mahābhārata* of Kavitraya (Nannaya, Tikkana and Errapraggada), though translations to Sanskrit originals are useful as the contemporary conditions also were interpolated in their free translations.

Pancatantram of Venkaṭanātha Kavi is a translation from Sanskrit *Pancatantram* of Viṣṇuśarma. But Venkaṭanātha made a free translation adding some more things of his period to the original work. He described some methods followed in toxicology in those days. We find references to the regimen followed by the people according to the seasonal changes in climate.

Rasikajana Manōbhirāmamu of Kūcimanci Timmakavi gives us information which helps in identifying the status of physician in the society. It also gives us a list of names of some *rasāyana*, medicines.

Simhāsanadwātrimśika of Koravi Goparaju, refers to the hygienic steps taken in labour room, the birth of a child and pre - natal and post - natal care etc.

Uṣāpariṇayamu of Rangājamma is a famous work and it has a significant place as a source book in reconstructing the social history of Medieval Andhradesa. *Candrabhanucaritramu* of Tarigoppula Mallana, *Rukmāngadacaritra* of Praudhākavimallana, *Viṣṇupurāṇamu* of Vennelakanṭi Sūrana are some of the other works which help us in tracing the habits of the people with regard to health and hygiene.

CĀTU VERSES

In Telugu literature, we find some stray verses which are attributed to authors of repute. There are some verses which seem to be the verses of Srinatha and are attributed to him. These verses throw light on the social aspects especially on the health care taken, dietetic habits and hygienic principles followed by the people, etc.

KAIFYATS

Thanks to the efforts of Col. Mackenzie and his clerks, we got some historical information from the administrative records known as *Kaviles* or *danda Kaviles* which were maintained by the then village Karanams. The digests of these *kaviles* known as *Kaifyats* contained information about the social, political and economic conditions of the respective regions. The *Kondaviḍu dandakavile* of the period of Prolaya Vemareddy gives a graphic description how Prolayavema acquired wealth by his knowledge in *rasavidya*. There are many records which help us in getting some information about the scholar-physicians and in deciding their dates. But the reliability of the information given in these records should be established with the help of other corroborative evidences from the inscriptions, medical literature and foreign accounts.

MEDICAL WORKS

The region-wise study of Ayurvedic literature is compulsory to trace the regionwise contribution for the development of this science, to observe whether it was in accordance with the traditional classical prescriptions or any new innovations took place, to observe whether the prescriptions were in accordance with the availability of the materia medica and in accordance with the customs and practices of the people, etc. And the study of the medical works helps us in identifying the historicity of the contemporary physicians and their dates.

SANSKRIT WORKS

In Medieval India, Sanskrit was the unifying factor among the Indians who spoke different languages in different regions of the country. The people of Andhradesa showed much regard to this classical language. Before fifteenth century, the scholar scientists believed that it was appropriate to write their works in this classical language. They might have thought that it was the better way to share their views with the scholars of different regions. As a result of it, the Andhra scholars contributed to Ayurveda by evolving a special type of approach combining the traditions of North and South.

Nagarjunacarya who is said to have flourished at Nagarjunakonda in the days of Satavahanas was a celebrated physician and alchemist. Some medical works named

1. *Kacapuṭa* 2. *Rasakakṣapuṭa*, 3. *Rasāratnākara*, 4. *Laṅghaśāstra*, 5. *Rasēndramangala* are attributed to him. He was the first to introduce blacksulphide of mercury.

Kaṭyānakāraka is another Sanskrit medical work of Andhradesa written by Ugrādityācārya, Jain scholar in the ninth century A.D. This work is very important to trace the medical practices of the day as it was compiled from many other sources, when the author was the resident of Rāmagiri located in Vengidesa. "The work opens with the statement that the science of medicine is divided into twoparts, namely prevention and cure and gives at the end, a long discourse in

Sanskrit prose on the uselessness of flesh diet, said to have been delivered by the author at the court of Amōghavarṣa, where many learnedmen and doctors had assembled". Ugrādityācārya refers to another saint-physician of the earlier time named Pūjyapādamuni in his work. It helps us intracing the development of the science and the order of the physicians of Andhradesa. Next important Sanskrit work on medicine from Andhradesa is *Cārucaryā*. It is said to have been written by king Bhōja. Actually it is written by a scholar named Bhoja in thirteenth century A.D. (Detailed discussion is given in the next chapter).

Cārucaryā deals with the rules and regulations to be followed daily by a person beginning in the morning till going to bed in the night. In this treatise, many subjects are dealt.

Parahita Saṁhita, a work composed by Srinatha Pandita of Parahita family, consists of three parts: 1. Sādhāraṇa-kāṇḍa, 2. Aṣṭāṅga-kāṇḍa and 3. Rasakāṇḍa. Sādhāraṇakāṇḍa deals with the subject of Sutrasthana, Astangakanda deals with the eight sections in accordance with the eight branches of Ayurveda, and the *Rasakāṇḍa* deals with the preparations of mercury and other metals. Till now only *Sādhāraṇakāṇḍa* and *Aṣṭāṅgakāṇḍa* in parts are available in printing. It bears a great value as it is written by a scholar of the Parahita family of physicians who served the society in medieval Āndhraḍēśa.

Vaidyacintāmaṇi is a great work written by Indrakanti Vallabhācārya. It is an independent work consisting of many new things about new diseases and new medicaments which had been observed by him in his pofession as a physician. He discussed about the *Mahājwaras* for the first time and identified 60 kinds of new tuberculosis diseases with their symptoms and characteristics and discovered the medicinal value of some new herbs. He introduced also a new method of testing urine.

Basavarājīyam also called *Vṛṣabharājīyam* is written by Basavarāju. The author collected some prescriptions from the previous works of medicine and compiled in his work. He clearly mentioned the source works immediately after the verse. He collected the things which he found suitable to the environment of Andhradesa by his experience. But it is not merely a compilation. He gave many important prescriptions which he invented by his experience. He

wrote this work with great care keeping in mind the climatic conditions of this region. Thus it is very useful work not only in tracing the medical development but also in identifying the physicians of Andhradesa as it refers to many works and their authors.

Bhavaprakasa is a famous work written by Bhāvamiśra. Dr. Muttu in his work *Antiquity of Hindu Medicine* wrote that Bhāvamiśra was the chancellor of Kasi University and was imparting knowledge in Medicine to about 400 students at about 1550 A.D. If we observe keenly the division of seasons mentioned in *Bhāvaprakāśa*, importance given to *Agasthyasampradāya* in addition to Caraka and Susruta systems, the rules and regulations laid down with regard to the daily and seasonal regimen, the prescription of the root China, the life period of Bhavamisra and his aims and principles, etc. We come to a conclusion that Bhavamisra might have written this work while he was in Andhradesa. Bhavamisra prescribed the *rasakarpūraprakriya* which was stressed in *Agasthyasampradāya* as the best remedy against Venereal diseases. He prescribed the visit to Srisailam, Purusothamakṣētram, etc. to cure some *viṣajwaras*. All these facts support the opinion that he lived in this area for sometime, visited various places, adopted the methods followed here, and collected some herbs of this region. *Bhāvaprakāśa nighantu* forms the integral part of his work *Bhāvaprakāśa*.

TELUGU WORKS

In Andhradesa, though the Telugu language was in vogue, the literary accomplishments started in eleventh century A.D. with regard to the science of medicine, the medical *samhitas* were studied in Sanskrit upto thirteenth century. Later they were studied with Telugu meanings and notes. After sometime, commentaries on *Samhitas* appeared in Telugu language. Original works in Telugu started appearing from sixteenth century onwards. In sixteenth and seventeenth centuries many works original nature as well as the translations to Sanskrit works appeared in Andhradesa. But unfortunately only a few are available now in complete form. Some works are referred in other's works but could not be found in the manuscript libraries.

Cārucaryā is a translation work by Appana to the Sanskrit *Cārucaryā* of Bhōja. It is a famous work on personal hygiene and daily regimen. It is first referred by Maḍiki Singana in his work *Sakalanīṭisammataṃ*, which is supposed to have been written in A.D. 1350. It helps us to observe how the people tried to prevent disease and protect their physical health by following the principles of regimen and hygiene.

The next known Telugu work on medicine is *Aṣṭāṅgaḥṛdayamu*, a translation to Sanskrit *Aṣṭāṅgaḥṛdayam* of Vagbhata by Cundi Lingayārya. Some scholars misunderstood it to *Bāhaṭagrāntha* and called it *Bāhaṭamu*, thinking that it is a changed form of the word *Vāgbhaṭamu*. The work now available is only in six chapters, being the translation of the *śarīra* and *nidāna sthānas* of the original work.

Vaidyasāramu is composed by Rayasamu Peranarya in seventeenth century. It is also a translation work to a Sanskrit work called *Navanāthasiddhapadīpikā*. But it seems to be a free translation with some variations from the original work. It gives traditional prescriptions and procedures common or popular in Andhra area.

Śarabharājīyamu is composed by Śarabharāju in Telugu. He dedicated it to Lord Anjaneya of Komirapudi (Guntur district) He stated in his work that he wrote *śrngarasudharnavam*, *prajnavatirayabaramu*, *Lavalivivahamu* and also a number of *Satakams*.

The work starts with the examination of eight elements i.e., pulse, urine, eyes, etc. and deals with the preparation of different medicines like powders, medicated oils and ghrtas, pills, etc. and treatment for important diseases like fever, consumption skin diseases, venereal diseases, jaundice, etc. Some of the prescriptions are traditional commonly used in Andhra area and some are new, probably the new inventions of the author.

Pānakālarāya a resident of Tadepally (Guntur district) wrote *Nētradarpaṇam* on the treatment of eye diseases in Telugu verse form. The author gave a list of 96 eye diseases and prescribed 35 kinds of ointments. This work is an excellent and perhaps the only specialised work on eye diseases. Caraka and Śusruta gave 76 eye diseases where as by the time of *Bhāvaprakāśa*, the number was put at 78. *Pānakālarāya* identified 96 eye diseases.

The author first started his work with *Karmavipākā* and then gave the causative factors. He mentioned 9 means of cure i.e., emplacements, medicines for application to be retained by bandages and also dietetics and eye-ointments, nasya, medicated oils, surgical practices, medicines and glasses. But the first four are discussed in the work and the remaining five methods are not found narrated. Hitherto there can be found no evidence to know whether the author completed the work with only the four methods or whether the remaining portions have been lost. With the help of the other works of the author, an attempt is made here in this thesis to identify his date.

Vaidyacinātmaṇi is composed by Dhēnuvukonḍa Kēśavāmātya. He states this work to be the translation of Sanskrit *Vaidyacināmāni* of Indrakanti Vallabhacārya. But on the observation of both the original and translation it will be clear that the translator did not follow the original strictly. It seems that by the time of this work mineral drugs attained high fame. The author gave much importance to the mineral preparations in this work.

Dēvulapalli Vēnkaṭanarasaiah, son of Śrīnivāsamantri also translated the Sanskrit *Vaidyacinātmaṇi* and named it as *Āndhra Vaidyacinātmaṇi*, Cilakamaṇṇi Vēnkaṭācārya, a disciple of Kandāla Rangācārya translated Sanskrit *Bhēṣaja Kalpamu* of Gangādharaācārya into Telugu. Many other works such as *Bālagrahacikitsa*, *Vaidyahāsyamu*, *Prasangaratnākaramu*, etc., were taken into consideration as source material.

FOREIGN ACCOUNTS

India has been a centre of attraction from the very earliest times for all the countries of the East and the West. Many travellers from far and near came as the merchants, ambassadors, pioneers, writers, physicians and philosophers had spent long time in this country travelling throughout its length and breadth and left valuable and very interesting accounts behind them. During medieval period, travellers from Persia, Italy, Holland, England, France, and Portugal visited the Āndhra region and its coastal area and recorded the conditions prevailed in the then society. Their accounts contain reference to the

social customs and traditions with regard to the health care of the people, their diseases and herbal remedies, trade in the medicinal goods, etc. The voyages and accounts of the travellers may be classified under two groups: Persian and European.

PERSIAN ACCOUNTS

Abdul Razzak came to Vijayanagar empire as a Persian ambassador and wrote his experiences in his travel account named "Malta-us-Saladain". In his account of the visit to this country, he praised the city of 'Bijanagar', "that eye has not seen nor ear heard of any place resembling it upon the whole earth". He mentions the habit of chewing betel and its merits as herbs, the dietetic habits, dressing, foot wear, the trade in spices and drug substances, etc. which help in tracing the conditions of health and hygiene of the people.

THE EUROPEAN ACCOUNTS

THE ITALIAN

Morco Polo, who came to India in A.D.1295 and who was regarded as the Prince among the medieval traveller, visited Andhradesa, when Queen Rudramadevi was ruling the Country. He referred to the flourishing trade of Andhradesa and many other things. Nicolo dei Couti another traveller from Venice arrived India in A.D. 1419. His travel account "*India recognita*" gives details about the social and economic conditions of the period. In A.D. 1505, Ludovico de varthema came and visited the Vijayanagar Empire. In his work "*Itinerario*", Varthema gives an account of Goa, Calicut and other ports of the west coast. His description of the habits and customs of the people, the fertility of the land, the economic prosperity of the country are as interesting as they are valuable. Pietro della valle (A.D.1622) is the next important Italian traveller who depicted the social conditions of the period in his travel account. His description of the houses of the people, their practices of cleanliness and hygiene, the habit of chewing betel, their clothing and other habits and customs

of the people are helpful in tracing the health and hygienic conditions of the day.

THE PORTUGUESE

The first Portuguese navigator who reached Calicut in 1498 was Vascoda Gama. With his arrival, the commercial relations of the South Indian Hindu kings had taken a new turning point. Though their main concern was horse trade, one cannot ignore the fact that the trade of South India in spices was very much developed with the arrival of the Portuguese. Vascoda Gama introduced many spices and medicinal substances of South India in other places and brought to India the new things like capsicum. He was the author of "*Navigation di Vidi Gaman*".

Domingo Paes was the most important traveller who visited Vijayanagar in 1520 A.D. and wrote much on it. His account which was published in Robert Sewell's *Forgotten Empire* had been a main source for the scholars who under take to write on South Indian History. Through the narration of Paes, we find references to the socio-economic aspects of the life of the people of medieval Andhra country. It gives a glimpse into the customs and habits of the people with regard to the regimen followed by the people.

Fernao Numiz, a horse dealer at Vijayanagar during the period between A.D. 1530-1540 left valuable account of his visit to Vijayanagar empire. His account on Vijayanagar empire was published in English in Robert Sewell's *Forgotten Empire*. It has been described as the most important source for the reconstruction of the history of Vijayanagar for "it alone gives a consecutive and connected account of the history of Vijayanagar till his day". But it too has its short comings and in so many matters, his statements are doubtful and are in conflict with other sources. His references to the dietetic habits of the people, drinking water, dressing, trade and the description of military camps are very much useful for the present study.

Another Portuguese traveller, Duarte Barbosa gives the account of Vijayanagar from 1501 A.D. to 1514 A.D. It gives us a glimpse into the general socio-economic conditions of the period concerned. In it,

we find some useful references with regard to the present study such as anointments after bath, footwear, umbrellas, dietetic habits, the physical exercises and trade in materia medica, etc.

Garcia Da Orta was Portuguese Physician who resided and practised for over 36 years in the middle of sixteenth century in Goa. He was the earliest European writer to enquire and collect information on the medicinal plants of India. He travelled extensively throughout the Deccan during his stay in South India. But he does not appear to have been at Bijapur or Vijayanagar, though he often mentions those places. He had a house and garden with many medicinal herbs at Goa. Though he did not stay at Vijayanagar, he might have toured in this region also. As a physician he was much interested in making tours with the Portuguese Army or Viceroy. He was also very much interested in the observation of drugs and herbs of this region. He tried to gain knowledge in Ayurvedic and Unani medicines and adopted some of these drugs and lines of treatment, in his own practice. He had reared many medicinal plants of this region in his own garden in Goa. Though he did not seem to have stayed in the Telugu country, his account contains scattered accounts of political conditions in the Deccan as well as the contemporary social etiquette and some stories and fables. As it gives the descriptions of plants, drugs, diseases and cures, it is useful to a large extent as a corroborative evidence.

THE DUTCH

Jan Huighen Van Linschoten was the first traveller who reached India towards the close of the sixteenth century. He visited the coast between Goa and Cochin and stayed at Goa from September 1583 to January 1589. He wrote an eye-witness account of his visits to the coastal areas. His travel book entitled "*The Itinerario of Sea Voyage of Jan Huyghen Van Linschoten to the East or Portuguese Indies*" was first published in 1596 from Amsterdam. It is a valuable source-book for the reconstruction of the history of medicine in India, for we find no exaggeration anywhere in the book. He confessed the fact about his knowledge in the medicinal herbs or drugs in the following lines: "Of these and such like herbes, there are manie in India, and in the

Oriental parts, the names and properties whereof are to mee unknowne because they are not so common nor knowne among the manner sort of people but onlie by physitians, Apothecaries, and Herbalists; therefore I have onlie spoken of such as are commonlie knowne and daylie used. And this shall suffice for Spices, Drugs, and medicinable herbes”.

Linschoten described many diseases which he had seen on his travel through Malabar and Coramandel coasts. He described the disease Elephantiasis which was in existence in Madras and Malabar. He writes about Coramandel coast thus: “this coast of Narasinga, Bisnagar and Orixá are by the Portugallies commonly called (as also the coast of Negapatam and Saint Thomas) Choramandal (until you come) to Bengalen, where the Portugallies have great traffique, for that it is a very rich and plentiful country of all things as Ryce and all manner of fowles, and beasts in great abundance. It is also a wholesome country and a good ayre for strange nations for that the Portugallies and other country men can better brooke it than (other places) in India. From these coastes, they use great traffique into Bengala, Pegu, Siam and Malacca and also to Indies”. He referred to the adulteration in the business of Civet and to the uses of Rhinaceroties “whose horn, teeth, blood, claws and whatever he has both without and within his body is good against poison” and described many customs and manners relating to the cleanliness of the people and also referred to the diseases and the methods of cure, etc. He dealt with many herbs, drugs and stuffs for the physicians and apothecaries from Chapter 62 to 82. His work is of great value in the medical context and the most useful of the European sources for the present study.

Christopher Schweitzer, a seventeenth century traveller visited Coramandel coast and stayed for a while at Nagapatam. He sailed along Malabar coast upto Goa and stayed at Cochin for some time. Though he doesnot give any account of health condition, his account gives a glimpse into the trade links of Andhra region in spices and medicinal goods with Jafnapatam (Ceylon) from Pulicat (Pallicatte) and Nagapatam ports.

THE SPANISH

Acosta was a Spanish physician, who visited Goa and practised for sometime in the west coast. Like Garcia Daorta, he was also much interested in the Indian medical system and tried to adopt the good things he found through his observations. He collected some medicinal plants of South India and returned to Spain. His book on Indian herbs and drugs is considered to be a copy of Garcia Da Ortas work. He added some other illustrations of the plants and was published in A.D.1578.

THE FRENCH

Clusius, a French Botanist and a great scholar in European languages, translated the work of Garcia Da Orta into Latin. This Latin edition was published in 1567. He translated Acosta's work also into Latin. These works were reprinted in many European languages in sixteenth century, thus bringing the new knowledge of the Indian herbal drugs into wider circulation in Europe.

Jean Baptiste Tavernier was among the first important French traveller who made six voyages to India. On his second voyage in 1639 he visited Surat, Agra, Goa, Golconda, Dacca and other chief towns in India. On his fourth voyage started in 1651, he visited many places in Andhradesa. Again in 1657, on his fifth voyage he visited Musulipatnam. Tavernier's first publication appeared under the title "*Nouvelle Relation du serrail du Grand Signior*". His great book the "*Six voyages*" appeared in French by Jean Baptiste Tavernier, Baron of Aubonn in the year 1676. Tavernier had travelled extensively in all the islands of the East and recorded an eye-witness account of the conditions prevailed in those days. From his travel account, we will get a picture of the social customs, religious beliefs, medical practices, materia medica, trade-links of the region with other islands, etc. We have the detailed description of some medicinal stones obtained from the animals such as goats, cows, snakes, monkeys, etc. in this region. There we find some absurd statements such as "old sugar is a dreaded poison". He, being a trader, might have given this statement with his

true business like nature" Judging merely from the internal evidences to his writings, we should say that he was a diligent traveller, who never mingled in political broils". About surgery, he states, "there was no person that would undertake to do it (surgery); for the native of the country understand nothing of chirurgy". He described the methods of collecting the drug substances.

THE RUSSIAN

India's contacts with Russia during this period were few, but some interesting visitors did come from this country. Athanasius Nikitin, a merchant traveller came to India in A.D. 1470. He was the author of "*khodzenie Za tri morya*". His account gives the list of drug substances and spices exported from India to Russia.

THE BRITISH

Among the English travellers who left valuable accounts and which are useful to the present study are those of John Marshall and Jonh Fryer. John Marshall is perhaps the first English man to study Indian Antiquities. He was the author of "*Notes and observations on East India*". He came to India in 1668. He described the doctrine of *tridose* according to indigenous medicine and the results of the imbalance of each in his account.

John Fryer came to India in A.D. 1670 as a physician and served at various settlements in India in seventeenth century. His travel account published under the title "*A New Account of East Indies and Persia*" was commented as "a most delightful book ever published on these countries and inavaluable for graphic description it gives of general conditions of the people of his time".

As Fryer's account is from the physician's point of view, it bears more validity and is more interesting. He stayed at Masulipatam for a mon^r. and writes; "People were free from sickness during summer but from May, with cooling showers, air grew foggy and Empyemas and fluxes were rifest". His description of seasonal diseases, venereal diseases, some home remedies, the country doctors, etc., and his

critical review of the indigenous medicine are useful as source material for the present study.

Thus we get a considerable volume of material bearing directly or indirectly on the subject. We find much corroborative evidence from the general literary sources to the facts mentioned in the medical literature of the period. Here and there, we find some contradictions in the information from various sources. But these variations are very limited and minor. In this case, the information coming from majority of the sources of authentic nature are accepted as historical. Most of the information which is taken from general literary works belongs to the history of health, hygiene and regimen of the people. The authorship of the work, its date and the relevance of the facts mentioned in the work are carefully observed and studied before taking into consideration.

With regard to the foreign accounts, some times we find exaggerating statements of positive or negative nature. It is mainly due to their ignorance of the traditions, customs and practices of this land and sometimes due to the preconceived impression of the travellers on this land and its people. As a result of it, we find some contradictions in the information coming from the foreign accounts. While taking the fact from these sources, various kinds of sources are consulted and every source of information available is put forth for discussion wherever it is necessary in the work. While restoring the truth with regard to the biased statements of foreign travellers, the information from the medical texts and the general literary works or the inscriptions is sought for. But it is not probable to doubt every bit of information of the foreign accounts. Some are very valuable as they described what they had witnessed. Actually, these accounts are of great help in tracing the condition of indigenous medicine in practice.

The present study is divided into seven chapters including the introduction and conclusion : They are;

1. Introduction
2. Physicians and Their Chronology
3. Physician, His Training, Status and Practice
4. Availability of Materia Medica
5. Medicine in Practice
6. Upkeep of Health and Hygiene
7. Conclusion

CHAPTER II

The Physicians of Medieval Andhradesa and their Chronology

From the ancient times, there were many medical scholars in Andhradesa who achieved an outstanding fame. Some of them composed medical works which were admired and studied by the scholars and students all over India. Though they followed the works of the ancient 'triad' basically, they were very eager in finding out the medicinal uses of the flora and fauna available here and in finding out the new methods of diagnosis. They continued the research work to find out new forms of medicines also. As a result of it, we find many new things that took place in their writings from the fourteenth century onwards. But unfortunately we do not get proper and sufficient information of these scientists, since they did not give much information of their personal life. Some of them mentioned either the name of their father or preceptor and sometimes did not give even such information. Some scholars, like the author of *Yogaratanakara*, did not mention even their names in their works. It indicates the fact that they were interested only in the development of the science and least bothered about their fame. Their longing for the human welfare is very much appreciable but their reluctance to fame became an obstacle in our attempts to reconstruct the History of Medicine. As a result of it, the information regarding a great revolutionary movement in medical research remained in total darkness. After a great effort, with the help of the meagre information available in the text about the father or preceptor of the author, or a reference in any other

work about him or a reference in any inscription, we can be able to identify his whereabouts.

Though the number of the records identified as bearing medico-historical information are few, they are conveying much valuable, authentic and interesting information. They yield many details especially with regard to the chronology of the physicians and throw light on the historicity of the authors of the medical texts and the other medical practitioners of the period.

EARLY PHYSICIANS OF ANDHRADESA

Ācārya Nāgārjuna was a great alchemist, physician and philosopher during the reign of Satavahanas. He resided at the Buddhist monastery of Śrīparvata, now known as Nāgārjunakonda situated in the present Guntur district of Andhrapradesh. Nagarjunacārya was deeply interested in medicine.¹ The inscription mentioning the *jwarālaya* (fever hospital) and the remains of the *jwaralaya* at the University area in Nāgārjunakonda are ample evidences for it. He was the first to introduce black sulphide of mercury. He is said to have written many books on medicine and alchemy such as 1. *Kacapuṭa*, 2. *Rasakakṣapuṭa*, 3. *Rasaratnākara*, 4. *Lauha Śāstra*, 5. *Rasēndraman-gala*.

PŪJYAPĀDA

Pūjyapāda, who lived at Srisailem, a famous centre for *siddhas*, *rasasiddhas* and *tantrics*, is hitherto wellknown as a philosopher, poet and grammarian of Ancient India. But the catalogues of various manuscripts libraries inform us that he was also a scholar in medicine and composed many medical works. He is said to have written the

1 In the words of Sri K. Balendusekharam, "If the Emperor Asoka was the Napoleon of Buddhist propaganda, Acarya Nagarjuna was the Napoleon of the propaganda of health and physical fitness".

K. Balendusekharam, *The Andhras Through the Ages*, Sree Saraswati Book Depot, Hyd. 1973, p.135.

following medical works: *Nidānamuktāyaḷi*, *Vaidyakagrantha*, *Maṇakāmaratna* and *Ratnākarādyuṣadhayōga grantha*.¹

Ugrādityācārya, a Jain physician of the ninth century A.D. referred Pūjyapādāmuni in his work *Kaṭyāṇakāraka*. This gives clue to the fact that Pūjyapāda belonged to the period not later than ninth century A.D. C.K.Srikantha Murthy opines that this great philosopher-cum-physician belonged to 600 A.D. and he was a great physician of Karnataka. But many scholars of Andhradesa believe that Pūjyapāda lived in Srisailam.² Anyway Andhra and Karnataka countries are the neighbouring areas having many common customs, traditions and cultural trends. Especially by this time (600 A.D.) Srisailam, Kolanupāka, Alampur etc. are the common religious centres to both the Andhras and Kannadikas.

Pūjyapāda is said to have achieved many *śidhdis* like *Ākāśagamana* (walking in the sky), *Suvarṇa Karaṇa* (making gold), etc. The author of *Rasaratnasamucchaya* and the other scholars like Gōmaṭadēva, Cāmundaṛāya, Subhacandra and Parśwapaṇḍita paid their regards to the learning and saintliness of Pūjyapāda, who is said to have driven away ill-health by his teachings, actions and by the composition of medical works.

VAJRAVARMA

In Nellore district, we find an epigraphical reference to a medical scholar in an inscription dated A.D. 663. It is the earliest inscription from Nellore district. It registers a grant of a village 'Eḍasantati' made to Śrīmēghācārya and Vajravarma by the Western Chalukya King Vikramaditya I. Vajravarma was the author of this inscription. This record informs us that Vajravarma, who belonged to a family of physicians, was also a physician.³

1 *A check-list of Sanskrit Medical Manuscripts in India*, CCRI, IMH, New Delhi, 1972, Nos.503,688,420 & 687.

2 *Bulletin, IIHM* 1978, Vol. VIII (1-4),p.8.

3 *Vikramasimhapuri Mandala Sarvaswamu*, p.135.

MUGDHA SIVAKANNAYYA

An inscription from Kollipāka village situated in Guntur district informs us that a scholar in Ayurveda and Grammar namely Mugdhaśivakannayya was given a grant in the regnal period of the Chalukya king Arikesari between A.D.775-800.¹

RĒVAṆASIDDHA

Rēvaṇasiddha dedicated his life for the propagation of saivism in Ancient Andhradesa. Being a medical scholar, he tried to extend his services to the common people and to gain their hearts. According to Saivite literature, God Śiva had five faces. Among them, the central face is considered as the most important one. From these five faces were born five *ācāryas* in the *Kaliyuga*. They are Rēvaṇasiddha, Maruḷasiddha, Ēkōrāma, Paṇḍitārādhyā and Viśwārādhyā. They established five centres for the propaganda of Saivism. They are :²

1. Rēvaṇasiddha - Kolanupāka (A.P.)
2. Maruḷasiddha - Ujjani (Karnataka State)
3. Ēkōrāma - Himavatkēdāra (U.P.)
4. Paṇḍitārādhyā - Srisailam (A.P.)
5. Viśwārādhyā - Varanasi (U.P.)

Rēvaṇasiddha established the *Śaivapīṭha* in Andhradesa, Kolanupāka as its centre and propagated the faith. It seems that he tried to attract the attention of the common people towards Saivism by extending medical and other services. He is considered to be a great *siddha* and was perfect in the *Rasa Siddha* system of medicine. In the field of medicine, there is a work known as "*Virabhattiya*" and which is attributed to him.³ We do not know definitely whether it is his

1 K.V.Sarma, *Ayurveda Itihasamu-Parichayamu*, p.359.

2 K.Sitaramaiah, *Kuruganti Vyasalahari*, Godwala, 1961, p.55.

3 The manuscript copies of the work "*Virabhattiya*" are available in the Oriental Library, Mysore and in the Adayar Library, Madras. They are in Sanscrit, but written in Telugu and a copy from Mysore Oriental Library is with Telugu Tika also.

A Check list of Sanskrit Medical Mss. in India, CCRIMH New Delhi 1972 No.998 p.74

original work or a work which was written later and was attributed to him. But we cannot totally reject the fact that he was a good Saiva physician, serving the people in the then society. Basavarāju, in his work *Basavarājīyam*, referred to "*Rēvaṇakalpapakam*". Further research in Ayurvedic literature in Sanskrit is needed to identify whether *Rēvaṇakalpapakam* referred by Basavaraju and *Virabhṭṭiyam* are one and the same or not.

Sri Kuruganti Sitaramaiah writes that after spending some time in Kolanupāka, Rēvaṇasiddha shifted the centre from there to Balehon-nur in Karnataka.¹

UGRĀDITYĀCĀRYA

Ugrādityācārya, a Jain scholar of ninth century A.D. was a resident of Rāmagiri located in Vēṅgidēśa. He composed a famous medical treatise entitled "*Kaḷyāṇa Kāraka*". In this work, the author mentioned that he was the desciple of Srinandi, who was honoured by Viṣṇurāja Paramēśwara. He was a contemporary of the Rashtrakuta king Amoghavarṣa I and of the Eastern Chalukya king, Kali Visnu Vardhana V.² Kaliviṣṇuvardhana V ruled the Vengi Kingdom during A.D.847-859. *Kaḷyāṇakāraka*, the work of Ugrādityācārya, begins "with the statement that the science of medicine is divided into two parts, namely prevention and cure and gives at the end, a long discourse in Sanskrit prose on the uselessness of flesh diet, said to have been delivered by the author at the court of Amōghavarṣa, where many learned men and doctors had assembled".³ Kaliviṣṇu-vardhana V, the Eastern Chalukya king ruled the Vengikingdom during A.D.847-849 and the Rashtrakuta king Amoghavarṣa ruled the kingdom during A.D. 813-880. Hence the Jain physician might have lived in the first half or in the middle of the ninth century A.D. With regard to his contribution to the science of medicine, he had given many new methods and types of treatments with mercury and other

1 K.Sitaramaiah, *Op.cit.*p.56.

2 *Bulletin, DHM*, 1964, II(4),p.203.

3 *Ibid*

metallic compounds. He condemned the sacrifice of animals under the pretext of treatment. He advocated and proved that these articles, though useful for treatment, are not absolutely essential and can be substituted by many more powerful herbs. One note-worthy point here is, that though the author was Jain physician who gave more importance to Jain tradition, he respected and described the *śānti*, *Hōma* and other rituals for promotion of health and relief from diseases,¹ perhaps to respect the tradition.

AGGAḶAYYA

The Saidapur (Nalgonda district) inscription belonging to the regnal period of Jayasimha II dated A.D.1034 informs us of a Jain physician, Aggaḷayya.² He is mentioned as *Vaidyaratnākara*, *Prāṇācārya* and *Naravaidya*. This record mentions that he was also an expert in *Umātantra*. This may mean the rasatantra as the medical works like *Arkaprakāśa* mentioned that it was revealed by Pārvati. He is also mentioned as an expert in surgery. The record registers a grant of a village named Muppanapalli to the head of that village to build a Jain settlement there. Here it is a noteworthy thing that surgery was taken up by the Jains also. It proves wrong the notion that the Jains discouraged surgery. Aleru was a famous Jain centre in those days. The Jain saints might have spread throughout the district and served the masses with their talent in the art of healing.

SŪRYADĒVAPANDITA AND ANANTABHAṬṬA

Two inscriptions from Bapatla corresponding to the years A.D.1151 and 1154³ refer to the grant of perpetual lamps to the God Bhāvanārāyaṇa by Anantabhāṭṭa. The donor was mentioned as the Son of Vaidya Sūryadēva paṇḍita, grandson of Nāgadēva, great

1 *Bulletin, DHM*, 1964, p.210.

2 Parabrahma Sastri, P.V., "Epigraphical Allusion to Surgery in Ayurveda", *Bulletin, IJHM*, 1977, VII (3-4) pp.127-130.

3 S.I.I. Vol. VI, Nos. 127 & 156.

grandson of Sūrya who belonged to the family of ṣerumanambi Sūryadēva Paṇḍita was mentioned as well versed in medicine. His native place was mentioned as Brhadankura in Tonda-mandalam. The place where he did the act of merit (donation) i.e. Bapatla, is not in Tondamandalam. Perhaps Anantabhaṭṭa might have gone on a pilgrimage to Bāpaṭla, to visit Bhāvanārāyaṇa Swāmy and made the donation to the God. Another inscription dated A.D.1155 from Daksaram also refers to the grant of a garden to the God by Suraya, who was a minister to Velanati Gomka. The Bapatla inscriptions also mention that the donor belonged to Brahma - Kshātrakula which indicates that he belonged to a family of a minister or a war - physician. Sūraya Mantri was mentioned as learned in medicine and was an important person in the village kantapu. He was also mentioned as *parahitaparatantra*. It seems that the physician who was mentioned in the two inscriptions of Bapatla., and the person who was mentioned in this record was one and the same. In these records, he was admired as well-versed in the science of medicine. These records indicate their sound financial position and respect they enjoyed in the society.

GUNḌADĒVA AND HIS SONS

K.B.Museum inscription,¹ whose date is missing, is very valuable as it refers to the family of famous physicians. The earliest members mentioned in this record are Gunḍadēva and Trivikrama. Trivikrama was as Bharata in rasa, Dhanwantari in Ayurveda, king Vatsa in *Hastyāśva* (veterinary science of horses and elephants) and Mādrēya in sword-fighting. This description indicates that Trivikrama was not only a scholar but also a warrior. He was mentioned to have had four sons namely Mēḍa, Gunḍa, Mardanārya and Pampa. Mēḍa was described as well versed in medicine, especially *parahitavidhi*. Mardanār ya was mentioned as who had removed sufferings of the distressed, orphans and Brahmins. This family followed the faith of

1 *A Corpus of Inscriptions in the Telengana Districts of HEH The Nizam's Dominions*, Part IV, pp.104 -109

Jaina. On the basis of the Telugu character of the record, it is considered to have belonged to twelfth and thirteenth centuries A.D.

BĀHAṬĀCĀRYA

Bāhaṭācārya inaugurated a new era in the history of indigenous medicine in India. He composed two medical treatises i.e., *Aṣṭāṅganighaṇṭu*, a medical lexicon and *Bāhaṭagrantha* a work on therapeutics. palm leaf manuscript copy of *Aṣṭāṅganighaṇṭu* is available in Saraswati Mahal Library, Tanjore.¹ The colophon that can be found in this copy informs us that it is written by Bāhaṭācārya. But the colophon of *Bāhaṭagrantha*, available in the Government Oriental Manuscripts Library, Madras,² mentions that it is written by one Kārtikēya, son of Gauri. There is an usual practice to call some famous works by the name of the author as for example - *Carakam*, *Susrutam*, *Vāgbhaṭam*, etc. In that way, the work by Bahata can be called as *Bāhaṭam*. *Bāhaṭam* or *Bāhaṭagranthaṁ* was written by Bāhaṭācārya, the author of *Aṣṭāṅganighaṇṭu*, but was mentioned as composed by Kārtikēya or Ṣaṇmuga, son of Gauri or Pārvaṭi in some places of the manuscript copy of the work.

There is a possibility to think that Bāhaṭācārya's first name might be Kārtikēya, son of Gauri. Kārtikēya's father might have died much earlier, perhaps in Kartikeya's childhood. Since he was brought up by his mother, he might have been called as "*Gaurīputra Kārtikēya*". He must be a Saivite scholar, who taught the subject to all without allowing anything in secrecy and for that reason he might have been called as Bāhaṭācārya. The word *bāhaṭam* means that 'which is open or undisguised'. Kārtikēya might have worked as an *adhyāpaka* in one of the SAiva centres in Andhradesa.

The Gaya inscription dated in the regnal period of kakatiya pratāpa Rudra informs us that Gauri wife of Mallikarjuna Suri got the '*śrāddha*' rite done without any hindrance. In this record Mallikārjuna is said to be a great scholar and the guru to *Pratāpa* Rudra. Mallikār-

1 *A.Des. Cat. Tel. Mss. T.S.M.L. No.984 (B 10796).*

2 GOML. No.13177.

juna is said to have the title “*Tribhuvana Vidyā Cakravartī*”. Gauri also is mentioned as a scholar capable of pleasing the “*Vidvatjanas*” (scholars) in consideration and good natured woman. Perhaps her child might have been named as *Kārtikēya* after the name of the son of Gauri and Mallikārjuna (Pārvati and Śiva). But we do not have any other source to prove this and it is merely an assumption. Bahata might have lived during last quarter of the thirteenth century and the first quarter of fourteenth century, as we find references from his works and in the works of other scholars from the middle of 14th century onwards.

Two copies of *Aṣṭāṅganighaṇṭu* are available (B.1 0795, 10796) in the Tanjore Saraswati Mahal Library. The colophon in one of them runs thus: “*Itiśrīmat Bāhaṭācārya viracitāyām aṣṭāṅghṛdaya saṁhitāyām aṣṭāṅganighaṇṭussamāptaḥ*”. But this colophon seems to be mistakenly copied by the scribe. Instead of writing “*Itiśrīmat-bāhaṭācārya viaracita Śrīmadaṣṭāṅga nighaṇṭussamāptaḥ*”, the word “*aṣṭāṅghṛdayasamhitayam*” is added unnecessarily. It might be an error committed by the copyist. *Aṣṭāṅghṛdaya saṁhita* is a treatise written by Vāgbhaṭācārya. One may doubt whether it is a part of “*Aṣṭāṅghṛdaya Saṁhita*.” But there is no *nighantu* part dealing with the materia medica in Vagbhata’s work. Hence it can undoubtedly be stated that it is a scribe’s mistake. In this work, Telugu names of the medical substances are explained in Sanskrit.

Bāhaṭagrāṇtham was a famous and popular medical work of medieval Andhradesa. It was considered to be a great work next to the works of the ancient *triad*. Many scholar-physicians of this region mentioned in their works that they have studied *Bāhaṭagrāṇthamu*, along with the works of Caraka, Susruta and Vagbhata. The physician described in *Paramayōgivilāsamu* is mentioned as having in his hand. “*Bāhaṭapustakamu*,”¹ “*Grāṇthamu*” is popularly called as “*pustakamu*” in Telugu. The work he had in his hand might be the work of Bahata. In this work, besides the traditional scientific theory of *tridosa*, many new findings of his time were explained. Perhaps they

might be his own innovations. He explained the *aṣṭasthānaparīkṣa*, *rasauśadhas*, etc.

Bāhaṭagrānthamu contains 9 chapters ie., 1. Nidāna yōga, 2. kaṣāyayōga, 3. pathyāpathya yōga, 4. Tailayōga 5. Ghṛtayōga, 6. Lēhyavargayōga, 7. Cūrṇavaṭikā yōga, 8. Auśadhayōga and 9. Rasayōga. *Bāhaṭagrāntham* explains many things in brief and is written in a simple style. The verse explaining the *nāḍīparīkṣa* mentions that the examination of the pulse should be done in the left side to the women and in the right side to the men. It gives scope to the rise of many questions with regard to the discriminations in *nidāna* shown between the male and the female patients. In many scholastic works of medieval Andhradesa, we find references from this work. The verse starting with “*Ādau samastharōgēṣu*” which explains the *aṣṭasthānaparīkṣa* is taken by Indrakāṇṭhi Vallabhācārya, the author of *Vaidyacintāmaṇi*.¹ Bhāvamiśra took a verse² which explains the *purvarupa* (pre-monitory symptoms) of *kāsa* (Tuberculosis). Sōmaya, the author of *Bhiṣagvarāṇjanaṁ*, mentions that after thoroughly studying the *Bahatagrāntham* and after thoroughly studying the *Bāhaṭagrāntham* and after grasping its essence, he started writing his work.³ Muḍumbi Vēṅkaṭācārya, the author of Telugu *Rasapradīpikā* paid his obeissance to Bāhaṭa and others.⁴ He used the word “*Bāhaṭādulanel-la*” which means “all the scholars such as Bahata etc.” He did not mention the names of others. The scholar who translated Trimallabhaṭṭa’s “*Śataslōki*” into Telugu verse form mentioned in the beginning of his work⁵ that he was going to translate the work which was previously written by a sage who was a profound scholar in *Bāhaṭaśāstra*. It indicates the fact that in medieval Andhradesa, the science of medicine itself came to be known as *Bāhaṭaśāstramu* after the name of Bāhata.

1 Vaidyacintamani, I-1.

2 Bhavaprakasa, I

3 Bulletin, IHM, IV(3&4), pp.129-140.

4 A .Des. Cat. Tel. Mss. GOML, Vol.XI, No.2453-2456

5 Ibid. No.2473

The Sanskrit *Bāhaṭagrathāḥ* is translated into Telugu verse form by Elakūci Bālasaraswatī Mahōpādhyāya.¹ But it is not available now.

BHŌJARĀJA

Bhōjarāja, the author of *Cārucaryā*, lived in Andhradesa during the medieval period when the kakatiyas were ruling the kingdom. Like Sāyana, Lōkambārāja and Pānakālārāya, the great scholar-physicians of medieval Andhradesa, Bhōjarāja also contributed much for the cultural development of medieval Andhradesa. His famous work *Cārucaryā* with various aspects of daily regimen like cleanliness, dietetics and other habits including moral code for healthy living.

Bhōjaraja was a great scholar-physician in Sanskrit. There is a work in Sanskrit literature known as *Rāmāyaṇa Campū* which is believed to have been written by king Bhōjarāja of Dharanagara. There are nearly 23 works which are attributed to king Bhōja. But the scholars are doubtful about some of the works. Among them, *Rāmāyaṇa Campū* is the one. It was not completed by the author. He left the *Yuddhakāṇḍa* incomplete due to some unknown reasons. Afterwards, it is located in the present Karimnagar district. Scholars in Sanskrit observed that one could not make out the difference between the part written by the original author and the part that was completed by the latter.² It was an usual custom in those days in India that if a work is not completed by the original author due to unexpected or untimely death, his son or his student used to complete the rest of the work. Sarabharaja's medical work *Śarabharājīyam* was completed by his renowned son Mādhava after the death of the former. There are plenty of examples of this type. This work *Rāmāyaṇa Campū* became very popular in Andhradesa. Without studying it, one cannot go to

1 *Candraparinayamu*, I

“కనుజుల చెప్పితే కర్మములు భుజియించి కర్మములు సుఖించుములు
సమస్త కర్మ నాధిపతి కర్మములను - కర్మములను బాధించుములు
చెలుస్తాక దేవులు కర్మములను - బాధించి సుఖించుములు”

2 M. Gopalareddi and Sujathareddi, *History of Sanskrit Literature*, pp. 736-39.

higher studies in Sanskrit. It was a compulsory study to the beginners in those days.¹ If this assumption is correct, Bhojaraja must have belonged to Śanagara or its surroundings. The Indian scholars took credit in writing any holy story or a *purāṇa* in their life-time, atleast at the setting time of their life. Bhōjarāja might have started the writing of this work in his oldage and was not able to complete it in his life time. With the view that *Rāmāyaṇa Campū* was written by king Bhoja, the scholars hitherto believed that the *Campū* form of writing started appearing from tenth c.A.D. They agreed that these works were written in significant number only after thirteenth century A.D. Especially this form of writing appeared in South India in abundance and were favoured by the poets of South India. Especially the Telugu poets who were accustomed to write on the *Sthalamāhātmya*, *Vilāsa* and *pariṇaya kāvya*s took up this form in their compositions.² *Rāmāyaṇa Campū* is popularly known as *Bhōja Campū*. It is in great popularity from the thirteenth century till today in Andhradesa. It is an important text to the Sanskrit students even in kannada and Tāmil areas. This fact also supports the view that the author was a south Indian.

Another work of much importance is *Cārucaryā* written by Bhōjarāja. It is a work dealing with *dinacaryā* or daily regimen. The author stated that he compiled the work after collecting many verses and principles from various works - religious, secular and Ayurvedic, for the benefit of princes and kings. The last verse also indicates the aim of writing this work thus - "This work, *Cārucaryā* written by Bhōjabhūpa, for the benefit of the princes and the courtiers, now ends."³ Hence the author Bhojaraja might be a court-physician. But it is an interesting thing to note that the work written for the benefit

1 M.Gopalareddi & Sujathareddi, *History of Sanskrit Literature*, p.738.

2 *Ibid.* pp.727-28.

3 Sri Rama Rao, who studied different pal-leaf manuscript copies of this work and compiled a comprehensive work, identified some of the verses found in other works which are both anterior and posterior to *Carucarya*. They are

1.*Astangahrdaya*, 2.*Cikitsānilaka*, 3.*Suśrutasaṃhita*, 4.*Anadakāṇḍa*, 5.*Kṣemakutuhala*, 6.*Astāngasāṅgraha*, 7.*Tambulamanjari*, 8.*Garudapurāṇa*, 9.*Viṣṇupurāṇa*, 10.*Manasollāsa*, 11.*Parāhita Saṃhita* and 12.*Bhāvaprāsāsa*.

Rama Rao, B. (ed), *Carucarya*, IISHM, Hyd., 1974, p.xv.

of the princes and courtiers does not deal with some topics like wines or qualities of meat. Exercise is not mentioned separately though the uses of the sword and its qualities are found mentioned. The topics which are mentioned in this work can be found in the *śūtrasthāna* of the Ayurvedic books. Some medical scholars like Srinivasarya, the author of *Cikitsātilaka* explained the *dinacaryā* and *ṛtucarya* in their works in detail whereas some others mentioned very vividly. Srinivasarya explained the daily regimen and the seasonal regimen describing everything including food habits, clothing, quality of eating-plates, *tambula*, etc. Some of the verses can be found in both the works.

As in the case of Vēmana's verses, in this work also, there seem to be many of the original verses left out and some other verses incorporated in the text by some learned scholars in different copies.

The first and the last verses of the work inform us that it is compiled by Bhōjabhūpa. But it seems that it is a later transformation of the word *Rāja* to *Bhūpa* by the scribes because the scribes who with wrong notion believed that Bhōjarāja, the king of Dharanagara and a great patron of letters and also a poet, was the author of this work. Or to popularise the work, one of the scribes might have consciously changed the word *raja* as *bhūpa*. Though there is no epigraphical evidence to establish the historicity of Bhōjarāja, the fact that the manuscript copies of the work except a few are secured in South India, gives us an idea that it might have been written and studied extensively in South India. It is translated into no other language except Telugu. And it is quoted in Telugu works. The first Telugu work that quoted a verse from Appana's *Carucarya*, is *Sakalanītisammatamu* which belonged to about A.D 1400. Appana lived the mid and later half of the fourteenth century and by this time, *Cārucaryā* of Bhōja might have been popular. The wide popularity of the work might have necessitated its Telugu translation.

Sri B.Rama Rao opines, "It is also probable that the book might have been compiled by another Bhoja of Deccan and this may be the reason for the fact that the work is popular only in south India and it is not known in western and northern India."¹

WHO WAS THE SOUTH INDIAN BHOJA?

There was one Andhra Bhoja, who was a great scholar both in Sanskrit and Telugu. He was referred by Maḍiki Singana in *Sakalanīti-sammataṃ*.¹ Maḍiki Singana, who belonged to 1400 A.D. quotes twenty five verses from *Nītibhūṣaṇa*, a Telugu work. They are under the following heads:

1. *Āgamapālana* (rule of law)
2. *Prajāpālana* (ruling the people)
3. *Ādayavyayaṃ* (income and expenditure)
4. *Rājjanīti* (Statecraft)
5. *Rājabhṛtyanīti* (conduct of royal officials)
6. *Sēvakānīti* (conduct of servants)
7. *Mantrarākṣaṇa* (guarding secrets)
8. *Danḍayātra* (undertaking an invasion)

Like *Cārucaryā*, this work also seems to be useful to both the ruling class and the people who wish to cultivate a cultured life in the then society and who seek to get employment in the administration.

A Sanskrit poet Bhōja is said to be a contemporary to Divakara Suri, father of Lōlambarāja.² Divakara Suri belonged to A.D.1299.³ *Bhōja Campū* and Bhoja's *Carucarya* are popular in Andhradesa from the thirteenth century only. These two works might have been composed by the same author in the middle of the thirteenth century. The author might be Bhōjarāja, the contemporary of the father of Lolambaraja. In those days, Brahmin scholars in arts, letters and sciences and who were engaged in the administrative work also added *raja* to their names. There were many names of Brahmin scholars suffixed with this word. The life time of this Bhōja also tallies with that of the composition of the work. Mantri Appana might have translated it in the early years of the fourteenth century since it is quoted by Maḍiki Singana who also belonged to the closure of the same century. There is another work known as *Āyurvēda Sarvaswam* which is attributed to king Bhōja. But nothing is known about it.

1 *Sakalanīti Sammatam*, 1-7.

2 Gopalarēddi & Sujathareddi, *op.cit.* p328.

3 *Ibid.* p.740.

Thus it can be concluded that Bhōjarāja, the author of *Cārucaryā* and *Rāmāyaṇa Campū* is not identical with the Bhōja of Dhārānagara. These books are mistakenly attributed to king Bhōja due to the similarity of the names. Though it happened by the mistaken view, it is really a regrettable thing. Bhōjarāja, the author of *Nītibhūṣaṇa* and the contemporary of Divākara Suri must be the author of *Cārucaryā*. The nature of the works is identical. The nature of his works indicates the fact that he might be one of the court-poets or advisers of the king or princes. AS his last work *Rāmāyaṇa Campū* is completed first by Śanagaram Lakṣmaṇa Sūri and *Cārucaryā* got much and quick popularity in the Telangana area, we can conclude that Andhra Bhoja belonged to the Telangana region of Andhradesa. He might have been patronised by Ganapatideva or Rudramadevi of kakatiya dynasty or by any other feudal lord during that period. Like many other medical scholars of Medieval Andhradesa, he too seems to be a great scholar in many subjects especially in Dharma Sastras.

APPANA MANTRI

In the beginning, the scholars in medicine used to compose their works in Sanskrit only. After sometime, especially from fourteenth century onwards some Telugu works began to appear. *Cārucaryā* of Mantri Appana is the first one in Telugu. It is a concise poetic form in Telugu to Bhōja's *Cārucaryā* written in Sanskrit.

The colophon of the work mentions that Appana was the son of Nāgamāmba and Govindācārya and the nephew of Singanāmātya. He belonged to Bharadhwāja gōtra and Apastambhasutra. It is believed that he composed this work in the first half of the 14th century.¹ He was later patronised by the Velama king Kumāra Singabhūpāla (A.D.1384-99).

1 Dr.B.Rama Rao, *Carucarya,JIHM*,Hyd.,1974.

ŚRĪKANTHA PANDITA

Paramaśaivācārya Śrīkanṭha Paṇḍita was a great scholar in many sciences including Ayurveda. He was popular more as a philosopher than as a scientist. Śrīkanṭha Paṇḍita also called as Śrīkanṭhaśambhu wrote a commentary to Saiva philosophy and established Śivādvāita school of philosophy. Among many commentaries on Saiva philosophy, Śrīkanṭha's commentary is the crest jewel. His philosophy became famous as Śivaviśiṣṭādvaita, Śivādvaita, Śivadarśana and Śrīkanṭhadarśana. Appaya Dikṣita (1520-93 A.D.), an eminent scholar patronised by Venkata II of Aravidu dynasty of Vijayanagara was a staunch follower of Śrīkanṭha. He was even called as "Śrīkanṭhamata Pratiṣṭhāpanācārya (establisher of Srikantha's school of philosophy).

Śrīkanṭha's services to the society in the field of medical aid was more admirable. He was an eminent scholar in the science of medicine and composed medical treatises such as "*Vaidyaka Sārasaṅgraha*" also called "*Hitopadēśa*" and *Yōgaratnāvalī*. In *Vaidyakaśārasaṅgraha*, Śrīkanṭha mentioned himself as Parama Śaivācārya.¹ The availability of the manuscript copies of the author in different parts of India² proves the fact that his works were considered as standard and were studied by the scholars all over the country. Narahari Paṇḍita or Nṛsimhapāṇḍita, a reputed scholar physician of medieval Andhradesa was the student of Śrīkanṭha Paṇḍita. The famous scholar-brothers Vidyāranya, Sāyana and Bhōganātha also were his students.

With regard to the date of Srikantha there are different opinions. Sri Halasyanatha Sastri writing preface to *Śivārkanṭhidīpikā* expressed the opinion that Śrīkanṭha was the fore-runner to all the āchārya puruṣas i.e. Śankara, Rāmānuja, Madhwa, etc. Some scholars

1 *A Check-list of Sanskrit Medical Manuscripts in India*, p.68, No.914.

2 Three manuscript copies of *Hitopadesa* are available in the Rajasthan Oriental Research Institute, Jodhpur, Rajasthan (Ibid.p.26, No.329). Three copies of the same work, but entitled as "*Vaidyakaśārasaṅgraha*" are available in the Bhandarkar Oriental Research Institute, Poona (Ibid.p.68, No.914). One more copy entitled as *Vaidyakaśārasaṅgraha* and also mentioned as *Hitopadesa* is kept now in the Oriental Institute, Baroda (Ibid).

opined that he might have belonged to eleventh century A.D. In *Parāśaramādhaviya*, Mādhavācārya mentioned Śrīkanṭha as his *guru*. Mādhava Vidyāraṇya had three gurus. Vidyā Tīrtha, Bhāratī Tīrtha and Śrīkanṭha. Vidyā Tīrtha was considered by Mādhava as an incarnation of Mahēśwara. Bhāratī Tīrtha is referred to in Mādhava's *Jaimini-nyāyamāla* as his *guru*. Śrīkanṭha might be his *guru* not only in Śivādvaita philosophy but also in the science of medicine. There is a general opinion among the scholars that Mādhava wrote a medical work, but it is not traced till now. Sāyana composed a medical treatise known as *Āyurvēdasudhānidhi*. The Biṭra-guṇṭa inscription¹ dated A.D.1356 registers the grant made by Sangama II of Vijayanagar dynasty on the request of his guru Śrīkanṭha to 28 brahmins after renaming it as Śrīkanṭhapura. The author of this record was Bhōganātha. Thus it is clear that Śrīkanṭha was a *dīkṣāguru* to Sangama II and he was alive in 1356 A.D. He was a contemporary to the three scholar brothers, but might be somewhat elder to them. Hence his date can be regarded approximately as A.D. 1300-1360.

With regard to the place of Srikantha, some scholars opined that he belonged to the *Āmardhakapiṭha* of Kālēśvaram which is situated in the present karimnagar district and some others believed that he lived in Śrīkālahasti.² We find inscriptions referring to him in Sunkēsari and Biṭraguṇṭa both situated in the present Nellore district. Though as a religious preceptor and physician he toured all over the Vijayanagara empire, he might have resided in Nellore district as is evident from inscriptional evidence.

MĀDHAVĀCĀRYA

He was the son of Māyaṇa, a Brahmin of the Bharadwāja gōtra, Bōdhāyana *sūtra* and Yajuśśākha. Mādhavācārya is an eminent scholar and is the author of many works on various subjects such as philosophy, scrificial rituals, grammar, logic, sciences, etc. There is a

1 *Vikramasimhapuri Mandalasarwaswami*, "Nelluru mandala Caritra", p.135.

2 S. Venkata Ramaiah, *Pushpagiri Bharati*, Pushpagiri Bharati Prakasana Samiti, Tenali, 1985, p.16.

saying in the medical field that he wrote a work on medicine also. Some scholars opined till the recent past that *Mādhavanidāna* is written by Mādhavācārya, son of Māyaṇa. But it is not correct. It might have been written by another Mādhava but not by Mādhava Vidyāraṇya. D.Gopalacari, who wrote a commentary to *Mādhavanidāna* rejected its authorship on the ground that it was translated into Arabic by A.D-775. Hence it is clear that *Mādhavanidāna* we got today is not Mādhava Vidyāraṇya's work. It seems there is a work named *Mādhavanidāna* written by Mādhava Vidyāraṇya in Udayapur Saraswati Bhandar.¹ Basavaraju in his work *Basavarājīyam* gave references from a medical work known as *Mādhava kalpa*. The verses he referred in his work do not tally with the verses in *Mādhavanidāna*. Perhaps it may be the work of Mādhava Vidyāraṇya. Almost all the scholars believe that Mādhava had written a medical work. But the name of the work is not definitely known. Hence we cannot definitely say that he was the author of a medical work also along with other works. But it is a fact that he had a *guru* named Srikantha, who was a great scholar-physician and who composed many works on medicine. Mādhava worked as a minister, a *kulaguru* and he was almost like a personal minister to the kings Harihara and Bukka. Such a kind of post definitely requires the knowledge in many sciences. Especially, he had to look after the health of the king and supervise his food habits, regimen, etc. That's why he might have studied the medical science also under his *guru* Śrīkantha. Further he might have also written a work on medicine with the help of other scholars who can be called as Vidyāraṇya school of scholars and who resided in the village Brāhmaṇa krāku and who were engaged in the writing of commentaries to Vedas, Vedangas, sciences, etc.

1 *Bharati* 1938, June, p.503.

SĀYANĀCĀRYA

Sāyana was another son of Māyana and Śrīmathi and was the younger brother of Mādhava. He was not only an eminent statesman under kampa I, Sangama II and Bukka I¹ but also a great scholar and a prolific writer. He compiled the “*Subhāṣita Sudhānidhi*”, a literary anthology, “*Dhātuvṛtti*”, a work on Sanskrit verbs and their conjugational forms, the “*Prāyaścittasudhānidhi*” a work on *Karmavipaka*, “*Yagnatantra Sudhānidhi*” a treatise on sacrifices and the “*Alaṅkāra Sudhānidhi*” explaining figures of speech and concepts of rhetorics, etc. during the time of Sangama II.² During the reign of Bukka, he wrote commentories on Vedas and the “*Purusartha Sudhānidhi*”, consisting of Puranic teachings on the *Puruṣarthas*.³

His work on medicine is “*Āyurvēda Sudhānidhi*”. It is not a published work. A manuscript copy of this book is available in the Oriental Library, Mysore.⁴ It is a copy of the Sanskrit work written in Telugu script. We do not know when Sayana wrote this text book on medicine. His work “*Prāyaścitta Sudhānidhi*” is also connected with the subject of ancient and medieval medicine as it is a work on *Karmavipāka*.

Sāyana was also the pupil of Srikantha. After taking retirement from active politics, Sāyana seems to have settled in the village Brahmana Kraku which is located in the present Nellore district. An inscriptions from this place, which registers the grant made by Hari Hara II after renaming it as Bukkarāyapura to the learned Brahmins of the village and to its deity dividing it into 63 *amsas*.⁵ The epigraph is dated in S' 1298, corresponding to A.D.1377. Hence it is clear that Sayana was alive in A.D.1377. According to Aufrecht, Sayana died in A.D.1377.⁶ Then his date can approximately be fixed as A.D. 1310-1377.

1 *Indian Antiquary*, 1916, p.23.

2 *Ibid*, p.2.

3 *Ibid*, p.2.

4 OLM, No. 764.

5 *Epigraphia Andhrica*, Vol.II, pp.77-83.

6 T.V.Mahalingam, *Administration and Social Life under Vijayanagar*, II, p.264.

DĀMŌDARABHAṬṬA

Dāmōdarabhaṭṭa was the author of “*Ārōgyacintāmaṇi*”. The colophons at the end of some chapters follows thus: “*Iti Śrī Viṣṇubhaṭṭa Suta Paṇḍita Dāmōdara Viracitāyacintāmanisamhitāyām Bālarōgādhyāyasthrimsaḥ.*”¹ Thus it is clear that Damodarapandita was the son of Viṣṇubhaṭṭa. On the basis of textual evidence, the editor writes, “He bases his text mainly on VAgbhata’s verbatim. We are not able to know anything more about the author of this work. He was a devout worshipper of Lord Siva. Nothig is known about his time and place. It is clear that the author lived at such a time and place as to favour the use of *Mūlaauśadhas* in preference to *Rasa-auśadhas*. Again such medicines like *Madhusnūhi*, which were very popular in later centuries, are not mentioned in the text. Many of the fruits familiar in North India are nowhere mentioned. Hence it appears that the author was neither very ancient nor very recent. He was not a resident of North India.”² The materia medica mentioned in the work, the regimen prescribed, etc., reveal the fact that he belonged to South India. Then the doubt arises whether he was a Maharashtrian, an Andhra or a Kannadiga. Chilukuri Ramabhadrasastri writes that there is a sect of Brahmins in Maharashtra having the suffix “*Bhat*” at the end of their names.³ Gurujada Ramamurthy Pantulu also expressed the same opinion. But we do not know on what basis they came to this conclusion. P.V.Parabrahma Sastri strongly condemned this opinion and mentioned that the word ‘*Bhat*’ was used as a suffix to the Brahmin scholars irrespective of their regional affiliation.⁴

1 The palm-leaf manuscript copies of his work are collected and published by the authorities of the Madras Oriental Mss. Library, Madras in 1951 under the editorship of S.Viswanatha Sarma. The work is not available in full.

Arogyacintamani, GOML, No. LXXV, Madras, 1951, pp. 37, 106, 134, 172.

2 *Arogyacintamani*, GOML, No. LXXV, Madras, 1951, pp. 16.

3 A Maharastra vipulāyandunokka-tegaku bhattachanama muddipta magunau Parudiyunna nannayyaparamundatti-tegaku jendina vadaye jagamu nandu
- *Nannayya Padya Kavyamu.*

4 *Bharati*, Aug’86. p.35.

Vidyatirtha was one of the *gurus* of Mādhava Vidyāraṇya. In his work *Sarvadarśana Sangraha*, Mādhavācārya paid his regards to his *guru* Sarvajnavisnu, son of Śārjñapāṇi.¹ He was considered by Mādhava as an incarnation of Mahēśwara. Sarvajnaviṣṇu, afterwards took renunciation and became the *Pīṭhādhipati* of Kanci Kamakoti on the name of "Vidyatirtha". After the renunciation of his *guru*, Vidyāraṇya mentioned him on this name only.² Vidyatirtha along with Vidyāraṇya played a prominent role in the early History and expansion of the Vijayanagara empire.³ Sankarānanda, Bhāratīṭīrtha, Vēdānta Dēśika, Mādhavācārya and Sayana are the renowned disciples of Sarvajnavisnu or Vidyatirtha. Among them, the first three are elder than the two brothers (Mādhava and Sayana). Sankarānanda took renunciation at the feet of Bhāratīṭīrtha and not at that of Vidyatīrtha. Vidyāraṇya received *sanyāsāśrama* at the feet of Sankarānanda. Hence it is clear that Sankarānanda and Bhāratīṭīrtha were very much seniors to Vidyāraṇya. Though Vidyāraṇya received his education from Sarvajnaviṣṇu, he received *tatvōpadēsa* from Sankarānanda. It reveals the fact that Mādhavācārya and Sāyaṇācārya received their education in Vedas, Vedangas and other Sastras when they were young. They might have completed their education long before the foundation of the Vijayanagara empire, they were eminent scholars at that time. Then the probable date of the completion of their education might be taken as A.D.1320. By that time, Sarvajnavisnu might be at the age of 50 approximately, as he was also the *guru* to Sankarānanda who again was a *guru* to Mādhava vidyāraṇya

1 Parangatam sakaladarsana sagaranam-atmocitartha caritarthita sarvalokah. Sri Sarjnapani tanayam nikhilagamajnam-Sarvajnavisnu guru manvaha manatosmi."

-Sri Kuruganti Sitaramaiah, *Sri Kuruganti Vyasalahari*, (Gadwal, 1961), p.85.

2 Yadvidyatirtha gurave susrusanya narocate, tadastvesa bhakti yukta srividyatirtha padayoh"-Vivarana Prameya Sangraham
"Pranamyā paramatmanam Sri Vidyatirtha rupinam-
Jaiminiya nyayamala slokaissangrhyate sputam"-

-Jaiminiya Nyayamala.

"Yasyanisvasitam Vedah yovedebhyo khilam jagat nirmametamaham vamde vidyatirtha maheswaram"-Veda Bhasyam *Ibid*, p.86.

3 T.V.Mahalingam, *administrative and Social Life under Vijayanagara*, II, p.230.

in philosophical education. Then his birth date can be fixed at about A.D.1270. He was alive in A.D.1356 as can be seen from a record which informs us that king Bukka I went to Sringeri to pay his respect to Vidyātirtha.¹ By that time he might be quite old. Hence his life time can be considered approximately as A.D.1270-1360. Then the birth date of Dāmōdarabhaṭṭa, son of Sarvajñaṣṇubhaṭṭa² can be assumed as about A.D. 1295. He might have composed the medical treatise, *Ārḍgyacintāmaṇi* after acquiring much knowledge both in theory and practice. He gave some new medicines which he discovered himself. The method of explaining the preparation of *Kaṣāyas*, etc., with minute details also reveals the fact that he was not only a scholar in the science, but also an expert practitioner. He might have written it not before his middle age. It suggests the fact that it was written in the second quarter of the fourteenth century or in the middle of that century. The textual evidence also indicates the fact that it must have been written in the first half of the fourteenth century. In the text *Mūlauṣadhas* were preferred to *Rasauṣadhas* and *Madhusnūhi Rasāyana* which was popular in the later part of the fourteenth century was not mentioned in this work. Hence it can be surmised that the work was written between A.D.1330-1350.

With regard to the textual subject, he mainly followed Vagbhata to a large extent though not in toto. He did not mention the names of *sthānas* like Vagbhaṭa exactly. In the beginning of the work *pancakarma* and other things which are essential for preserving good health were given. And then follow chapters on fever, dysentery, etc. In the end, all things about the other *angas* have been dealt with fairly. He gave in detail the *Prattyaṣadhas*, which have not been mainly dealt with by the ancient authors. He mentioned many new prescriptions and the way he explained the procedures of making various forms of medicines reveals his expert hand in pharmacology. Some of his verses are taken by Śārjñadhara, his son and by the author of *Yōgaratnākara*.

1 E.C., IV, zd.46.

2 *Sarvajña* is a title conferred on some scholars in medieval Andhradesa, who were well-versed in all Vedas, Vedangas and all the Sastras. The Velama king Singa-Bhupala also had the title "*Sarvajña*" and he was popularly known as "*Sarvajña*" Singa Bhupala.

The editor of the published work mentions that he has corrected the errors "with the help of the works of *Caraka*, *Susruta*, *Vāgbhaṭa*, *Śārjñadhara* as well as *Yōgaratnākara*".¹

ŚĀRJNADHARA

Śārjñadhara, the author of *Śārjñadhara Saṁhita* is famous as a great scholar who inaugurated a new era in the History of Ayurveda. The colophon of his work mentions that he was the son of Dāmōdara. His father Dāmōdarabhaṭṭa was the son of Viṣṇubhaṭṭa and a great scholar-physician. He wrote a medical work entitled *Ārōgyacin-tāmaṇi*. Thus it is clear that their family was a family of medical scholars and physicians.

Other than Śārjñadhara, the son of Dāmōdara and grand son of Viṣṇubhaṭṭa, there are two other scholars on this name. One is the author of *Sārjñadharapaddhati*, the son of Dāmōdara and the grandson of Raghavadeva. Another is the author of *Śārjñadhara Trisati* and the son of Devaraja.² Sarjñadhara the author of *Śārjñadhara Paddhati* was the resident of Gujarat. His grand father Rāghavadēva is mentioned as the guru of Hammīradēva, the ruler of Śākāmbhari country (Gujarat). Some scholars believed that the author of the *Śārjñadhara Paddhati* and *Saṁhita* were one and the same.³ Dr.P.V.Sarma proved on the basis of internal evidences, that the author of *Śārjñadhara Paddhati* is different from that of the *Saṁhita*. He mentions that their dates also do not tally.⁴ He opined that the author of the *Saṁhita*, might have belonged to Maharashtra (Devagiri).⁵ But it does not seem probable since his decision depended on the place of the commentators and referers. But it is not proper to think that the author belonged to the native region of the commentators. For example, we cannot state Kalidasa belonged to

1 *Arogyacintamani*, GOML, (Madras, 1951), Introduction, p.17

2 G.J.Menlenbeld, *Madhavanidana and Its Chief commentary*, (Leiden, E.J. Brill, 1974), p. 428

3 G.J.Menlenbeld, *Op-cit*, p.428.

4 Dr.P.V.Sharma, *Ayurvedaka Vajjanik Itihas*, pp.133-134.

5 *Ibid*, p.134.

Andhradesa, since Mallinatha, the great commentator, to the works of Kalidasa belonged to Andhra region. *Śārjñadhara Saṁhita* gained fame within a short period and its copies spread throughout the country from the Himalayas to the *Sēthu*. Vopadeva might have written commentary to this work within a short period of the composition of the original work. Rudrabhaṭṭa, son of Vaidya Kōnēri Bhaṭṭa who belonged to Andhradesa, also wrote a good commentary to this work. The other commentators are Adhamalla and Kasirama.

P.V. Sharma expresses his opinion that the author of *Śārjñadhara Saṁhita* belonged not earlier than the first half of the thirteenth century. Many scholars believe that he belonged to the second half of the fourteenth century.¹ This opinion seems to be the probable. Śārjñadhara's grand father Viṣṇubhaṭṭa was a *Vidyāguru* to Mādhava Vidyāranya. On the basis of it, a probable chronology is drawn.² The probable birth date of Damodara is traced as A.D.1295. Then the birth date of Śārjñadhara can be drawn as A.D.1320. Then Viṣṇubhaṭṭa was alive. That's why Dāmōdara gave his grand father's name i.e., Śārjñapāni as Śārjñadhara, to his son. The colophon at the end of his work mentions that he gained scholarship in medicine by serving the feet of Candrasēkhara. There is scope to believe that Candrasēkhara, who became a pontiff in Śringēri matha after Vidyāranya, might be his *guru*.

Thus the date of *Śārjñadhara Saṁhita* can be taken as the second half of the fourteenth century. He was a great medical scholar in the Vijayanagara empire during the reign of Sangamas.

Śārjñadhara Saṁhita puts forth many new things in the field of medicine. Like Dāmōdarabhaṭṭa Śārjñadhara also explained not only the diseases resulted due to the imbalance of the *tridoṣas*, but also the diseases occurred due to the *dosa* of the blood. He explained a number of new diseases happened due to the insects and the germs. The introduction of the examination of pulse in the diagnosis is said to be his contribution in Ayurvedic medicine. The description of the application of mineral drugs, their calcination and purification, the

1 K.V.Sharma, "The Siddha and Rasa Siddha Schools of Indian Medicine, *IJHM*, (1973), 18,21-23,p.24.

2 *supra*, p. 93.

application of poisonous drugs in certain diseases, the importance given to *pancakarma* are some other special features of his work. He described a hair-removing cream (depilatory).¹ Perhaps it was this cream that was popularly prepared and sold in the markets of this region under the name “*Susarabhēr*”.²

NARASIMHA PANDITA

He is the author of a famous medical lexicon entitled “*Rājanighantu*” also called “*Nighaṇṭurāja*” and “*Abhidāna Cūḍamani*”. Nṛsimha is also called as Narahari, Nrhari and Narasimha Pandita. He was the son of Īśwara Sūri or Candīśwara, who belonged to *Kashmīrāḍya vāmśa* and a resident of Simhapuri. Hitherto all the scholars believed that Nṛsimhapandita was the resident of Kashmir. But it is a hasty conclusion. If they have studied the colophon carefully, they would have realised the fact that he belonged to Andhradesa, a student of Śrīkantha and a resident of Vikramasimhapuri.

Simhapuri is another name to Nellore. The name Simhapuri came to this place on account of a Jain monk Acarya Simhanandi. It is because Simhanandi consecrated the idol of Jain, whose bearer is a lion, it is said, the town came to be known as Simhapuri.³ Sri Kavuturi Ramacandra Rao opined that the place came to be known as Simhapuri after the name of its founder, Simhavisnu, the Brhatpallava king (A.D.575-600).⁴ Anyway, it is a well known fact that the town is called as Simhapuri and Vikramasimhapuri. In this town, there is a temple to Lord Narasimha in Daṇḍuvāri street. The local deity of Nellore is Candīśwari (also called Irukamma). Thus we can see that the names of Nṛsimha and his father Candīswara or Iswara Suri are related to this place. They were the popular names there. Nṛsimhapandita mentioned that his patron was Nṛsimha. The scholars like Garbe, Keith and Dutt Sharma searched for the king who patronised

1 *Sarjñadhara Samhitā*, p. 417

2 *Kṛidabhiramam*, Vv. 77-81

3 G.J.Meulenbeld, *Madhavanidāna and Its Chief Commentary*, (Leiden, 1974), p.406.

4 *A Des. Cat. of San, Mss*, GOML, Madras, Vol.23, No.13254, pp.8928-30.

this scholar. But they did not find out the king with the name Nṛsimha ruling at the time the other scholars assumed i.e., after A.D.1400. Hence they thought that Simhaḍēva who ruled Kashmir from A.D.1235 to 1250.¹ But it cannot be accepted sine the date of writing did not tally with it. Nṛsimhapandita mentioned that he had consulted many works such as *Dhanwantarīya Nighaṇṭu*, *Madanapālanighaṇṭu*, *Halāyudha* and others, but states that he mainly followed the opinions of *Dhanswantarīyanighaṇṭu*.² Then it is clear that the work is later than the *Madanapālanighaṇṭu* dated A.D.1374. This fact rules out the opinion of Garbe, Keith and Dutt Sharma that Nṛshimha's patron was Simhadeva of Kashmir.

Then the problem arises that who was the king named Narasimha that patronised Nṛsimhapandita. Simhapuri or Vikramasimhapuri remained for some time under the rule of Narasimhaḍēva, the Ganga ruler of Orissa. The kings of this dynasty were famous for their munificent activities. They received scholars from various places and patronised them in their kingdom. They granted lands and villages to the Brahmin scholars. That's why, scholars from various parts of the country came to their kingdom and settled there. Especially, after the establishment of the Mohammadan rule in northern part of India, many scholars started coming to the south for patronage and for the protection and propagation of their faith in the South. Among them the Kashmir Brahmin sect was one. These Brahmins propagated Kashmīra Saivism in Andhradesa. Temples were built for Kashmīra Rudreswara in the fourteenth century. Druppalli inscription³ dated A.D.1306, registers a grant made by Bollamarāju and Rangappa Rudradēva to God Kashmīra Rudrēśwara. Nṛsimhapandita's forefathers might have belonged to Kashmīra Saiva school of philosophy as he is mentioned in the colophon as belonging to *Kāśmīrādyavamsācāryaparamparānvaya*. Among the five schools of Saivism in Andhradesa, it was one. Nṛsimha or Nṛhari mentions that his *guru* is Śrīkantha. Let us observe the colophon at the end of the

1 G.J.Meulenbeld, *Madhavanidana and Its Chief Commentary*, (Leiden, 1974), p.406.

2 *A Des. Cat. Skt. Mss.* GOML, Madras, Vol.23, No.13254, pp.8928-30.

3 *Sasanasamputi*, (Tel), Pts.1&2, Saraswatililayam, Hyderabad, 1973, pp.251-57.

first chapter which forms a source of information supporting the above opinion:

*iti Śrīvaidyapati mūrdanya ratnābharāṇa śrīmadīśwara sūrisūmu Śrīkantha caraṇāravinda sēvāsēvakarājahaṃsa Śrī Kāshmīrādyavamśācārya paramparānvaya Śrīnṛsimhapandita viracitē nighaṇṭurājāpara nāmadhēya paryāyavaṭi abhidāna cūḍāmaṇi anupādi vargaḥ prathamah.*¹

Thus this colophon makes it clear that Nṛsimhapandita, the son of Iswarasuri and the desciple of Srikantha, wrote the work *Abhidānacūḍāmaṇi* also called *Nighaṇṭurāja*. It also informs us that he belonged to a family which followed *Kāshmīrādyāśaivism* and he had the title *Vaidyapatimūrdanyaratnābharāṇālaṃkāra*.

Another colophon which appears at the end of the sixteenth chapter runs thus: *iti Śrīvaidyārāja rājahaṃsa Śrīmadīśwara Sūrisūnu Śrīmadamṛtakara gadāśūlālaṃkāra caraṇa kamala niṣyandana prasāda makarandāsṇādanīya suṇdarēṇḍirā vēdacitta sūtkāra śrī Kāshmīrādyavamśācāra Paramparānvaya Śrī Nṛsimhapandita viracita nighaṇṭurājāparanāma paryāyavaṭi bhōjyavargāpara nāma dhānyavargah.*" Nṛsimha is mentioned here as one who is blessed by the grace of Lord Dhanwantari (*Amṛtakara*) and Hariharanātha (*Gadāśūlālaṃkāra*) one who wears *gada* and *śūla*, the weapons which represent Viṣṇu and Śiva respectively). Thus this colophon informs us that Nṛsimhapandita had an *amṛtahasta* and is blessed by the grace of Dhanwantari and Hariharanātha. Hariharanatha cult originated in Andhradesa from Vikramasimhapuri (Nellore dt.) in the eleventh

1 This colophon informs us that Nrsihapandita had the title *Vaidyapatimurdanya ratnabharanalankara*, which means a crest-jewel among the scholar-physicians. It further means: *Srimadiswarasuri sunu* - the son of Iswarasuri
Srikanthacararanaravinda sevasevaka rajahamsa - the best among the people who served the feet of Srikantha
Srikashmiradyavamsacarya paramparanvaya - one who is a descendent of a family which follows Kashmiradya Saivism as its family faith
Nrsimhapanditaviracita - written by Nrsimhapandita
Nighanturajaparanamadheya - having another name as *nighanturaja paryayavati* - containing synonyms (to the medical substances)
dhidanacudamanau - in *Adhidanacudamani*
anupadivargah prathamah - the first chapter is *anupadivargam*
A Des. Cat. Skt. Mss. GOML, No.13254, pp.8829-30.

century. There is a temple in Vikramasimhapuri for Lord Hariharanatha. He is engraved as wearing *gada* and *śūla*.

Thus we can say that Nṛsimhapandita, the author of *Rājanighaṇṭu*, or *Abhidānacūḍāmaṇi*, was the resident of Simhapuri or Vikramasimhapuri and hailed from a Brahmin family which followed traditionally the *Kāshmīrādyā* Saivism. He was the desciple of Śrīkanṭha, who was also a great scholar in Ayurveda. Śrīkanṭha followed *suddha* saivism. Though Nṛsimha is said to have belonged to *Kāshmīrādyavamśācāraparampara*, he followed his own path in religious views. He paid his obeisance to Hariharanatha along with Siva and Dhanvantari (an *avatara* of Visnu).

According to Filliozat, *Rājanighaṇṭu* dates at the beginning of fourteenth century, Gode opines that it is written at about A.D. 1450. T.Chowdhury assumes that the work was written about A.D. 1400. It is supported by Meulenbeld.¹ The textual evidence proves that it was written only after *Madanapālanighaṇṭu* which was written in A.D. 1374. Nṛsimha's *guru* Śrīkanṭha also belonged to this period. If Vidyāranya, Sāyana and Bhōganātha were his seniors, his date of taking instruction at the feet of Srikantha could be placed in the first half of the fourteenth century. The Bitragunta inscription² informs us that Śrīkanṭha was alive in A.D. 1356.

Nṛsimha's patron must be Narasimha IV who ruled Kalinga between A.D. 1378-1409. Narasimha III ruled the kingdom of Kalinga between A.D. 1327-1353. But he must not be the king who patronised Nṛsimhapandita, since we found that the author followed *Madanapālanighaṇṭu* which was written in A.D. 1374. Hence it is clear that he was patronised by Narasimha IV. It is probable to think that Narasimhapandita might have written his work *Rājanighaṇṭu* before A.D. 1386. There seems not much gap between the writing of *Madanapālanighaṇṭu* and *Rājanighaṇṭu*. It makes us think that *Madanapālanighaṇṭu* became famous soon after its origin, especially in Andhradesa, the place of its inception and Narasimhapandita might be also in touch with its author. He might have written

1 G.J.Meulenbeld, p.406.

2 *Vikramasimhapuri Mandalasarwaswamu*, p.135.

Rājanighaṇṭu approximately between A.D. 1380-86, when Narasimhadeva IV was ruling the kingdom.

Nṛsimhapandita wrote two other medical works i.e., *Guṇasārasamuccaya*¹ and *Vāgbhaṭamanḍanam*.² His three medical (Sanskrit) works gained popularity within a short period. Especially *Rājanighaṇṭu* was very much favoured by the physicians all over the country. The palmleaf manuscript copies of this work can be found available throughout India. This work contains new medical substances which were not mentioned in the previous works such as *Dhanwantarīya nighaṇṭu* and *Madanapālanighaṇṭu*. *Guṇasārasamuccaya* is also a work on *materia medica*. *Vāgbhaṭamanḍanam* is a commentary on *Aṣṭāṅgahṛdaya Sangraha* of Vagbhata. The copies of these works are found available in Telugu and Sanskrit scripts. The copies of *Rājanighaṇṭu* or *Abhidānacūḍāmaṇi* are available in Telugu, Kannada and Nandinagari scripts. It indicates the wide popularity of the works of Narasimhapandita.

VIŚWĒŚWARA BHATṬA

Viśwēśwarabhaṭṭa was a famous scholar who was learned in Vedas and Vedangas. He was the son of Peddibhaṭṭa. He won the admiration of the Reddi kings and was the poet laureate of the Recarla king Singabhupala, who ruled between A.D. 1386-1412. He was a famous rhetoric and wrote *Camatkāracandrika*, *Rasārṇavasudhākara*, *Smṛitimahārṇava*, etc.

Madanamahārṇava is another work which seems to be his composition. It is a work dealing with *Karmavipāka*. The palm-leaf manuscripts of this work are available in the Oriental Manuscripts Libraries all over India. In the manuscript copies available, the colophon in the last page mentions that the work entitled *Mahārṇava* was compiled by Mandhatri, son of Madanapāla. Another colophon in this manuscript attributes the work to Viśwēśwarabhaṭṭa son of Peddibhaṭṭa. Another manuscript which is located recently in

1 OLM: 5198.

2 *Ibid.* A 101.

Hyderabad also contains the same colophons. This manuscript is in Telugu script. It was transcribed at Dharmapuri (in the present Karimnagar district) on the banks of holy Godavari.¹

During medieval period, many works, especially the works on Dharmasastra, are attributed to Madanapāla or his court poets. The scholars observed that the works of this type belong to the period between A.D. 1306-1390. But we do not find any evidence to prove the historicity of Madanapāla or his son Māndhātri during this period. It seems that Madanapāla and his court are mere fables created by the imagination of the poets in imitation of the king Bhoja and his court. Hence it may be that the colophon at the end of "*Madana Mahārṇava*" is a false one added by the latter scribes. Or it might be that the author Viśwēśwarabhaṭṭa, to make the work gain popularity, had attributed his own work to Māndhātri, son of Madanapāla. This work quotes puranas and many other works along with *Caturvarga Cintāmaṇi*, which is believed to have been compiled in the later half of 13th century.²

Singabhūpāla II, the patron of Viśwēśwarabhaṭṭa, was also a great scholar and had the title "Sarvajña" i.e., one who is a scholar in all arts and sciences. He belonged to Recarla family who ruled Devarakonda during the period A.D. 1388-1412. He is said to be the author of "*Rasārṇava Sudhākara*". But some scholars believe that it was actually written by Viśwēśwarabhaṭṭa and was declared after his patron's name. Anyway, it is believed that it was written before A.D. 1360,³ even before Singabhūpāla II came to the throne, on the basis of the fact that it was mentioned in Sayana's *Alankāra Sudhānidhi*. Another thing to be noted here is that the scholars observed the fact that the work attributed to Madanapāla or his son Mandhatri extended over a period between A.D. 1360-1390. It was during this period that Nāganātha Kavi who belonged to Andhradesa and patronised by Anavōta and Singabhūpāla wrote a work known as

1 B.Rama Rao, "Contribution of Andhras to Ayurveda in Sanskrit", *Bulletin of IIHM*, 1978, Vol.VIII (1-4), p.p. 8-13.

2 B.Rama Rao, "Contribution of Andhra to Ayurveda in Sanskrit" *Bulletin, IIHM*, Vol. VIII, p.11.

3 Dr.M.Gopalareddy & Sujatareddy, *History of Sanskrit Literature*, p.854.

Madanavūṣa in Sanskrit. Thus we come to know that the time factor also is adjusting to that of Viśwēśwarabhaṭṭa. The title given to the work *Madana Mahārṇava* like his other works "*Rasārṇava Sudhākara*" and "*Smṛtimahārṇava*", also creates the idea that it might have been written by one and the same author. Thus the time factor and the title of the work give support to the information given in the colophons mentioning that Viśwēśwarabhaṭṭa son of Peddibhaṭṭa had written "*Madana Mahārṇava*".

VIṢṆUDĒVA

He was the author of *Rasarājalexmi* a work on *Rasa* system of medicine. He gave references from *Rasārṇava* and *Kakacandīśvaratantram*. He referred to the *Siddhas* like Nāgārjuna, Vyāḍi, Swachanda Bhārava, Gōvinda Bhagavadpādācārya, etc., A palm-leaf manuscript copy of this work is available in the Tanjore Saraswati Mahal Library,¹ written in devanagari script. He was a royal-physician to king Bukkaraya of Vijayanagra Empire. As he is believed to have belonged to fourteenth century, he might have been patronised by Bukka I (A.D. 1355-77) and a contemporary to Nityanāthasiddha, Śrīkanthapandita, Mādhava and Sāyana. *Rasarājalexmi* is a work on therapeutics.

LŌLAMBARĀJU

Lōlambarāju was the most distinguished and renowned scholar-physician of medieval Andhradesa. The manuscript copies of his books are available in various parts of our country.² Some scholars like P.V.Sharma thought that he was a north Indian.³ But the Sanskrit scholars found out that he was patronised by the Rayas of

1 TSML, No 11106

2 *A Check-List of Skt.Med.Mss* pp 54, 65, 66, 70

3 P V Sharma, *Ayurved ka Vajnanik Ithas*, Chanukambha Sanskrit Pratishthan, Varanasi, 1981 p 233

Vijayanagar.¹

Lōlambarāju was not only a great physician but also an eminent scholar in Sanskrit. He composed two literary works known as *Harivilāsamu* and *Sundara Dāmōdaramu*. In the introductory verses of *Harivilāsa*, he mentioned that he was the son of Rāju Divākara Suri and the poet-laureate of king Hari Hara. Divākara suri was mentioned as the contemporary of Bhoja.² Divakara Suri or Divakara Kavi belonged to A.D. 1299.³ Hence the king Hari Hara whom Lōlambarāju mentioned might be Hari Hara Raya I of Vijayanagara dynasty. Hari Hara I ruled the kingdom from A.D. 1336 to 1356. Hence we can say that Lōlambarāju lived in fourteenth century A.D. and the approximate date can be surmised as A.D. 1310-1370. Veturi Sankara Sastri fixed the date of Lōlambarāju as A.D. 1557.⁴ But he had not given any reasons on which he based his opinion. P.V.Sharma opined that he belonged to the first quarter of the seventeenth century.⁵ This decision is made on the opinion that he referred some verses from Bhavaprakasa. But it is noticed that the authors of *Lōlambarāṇḍyamū*, *Bhāvaprakāśa*, *Vaidyacintāmani*, *Cikitsātilaka*, etc. took many verses from a common source probably from *Bahatagrantha*, a work of thirteenth century A.D. It is found out that Indrakanthi Vallabhācārya and Bhāvamīśra took some verses from the work of Bāhaṭācārya.⁶

Lōlambarāju's work *Sadvaidyajīvanam* was popularly known as *Lōlambarāṇḍyamū*. In the beginning of his work, the scholar-physician paid his regards to Śiva and Pārvati. It proves that he was a Saivite. He maintained self-respect as the ruling class used to do in those days, while mentioning about the purpose of composing this medical work. It indicates that he might have belonged to the ruling class. He wrote

1 Bharati, Silver Jubilee, Vol. (1924-49) p.33, Dr.M.Gopala Reddy, & Sujatareddy, *Hist. of Skt. Literature*, Tel. University, Hyd, 1986, p.328.

2 Dr. M.Gopalareddy & Sujathareddy, *OP.Cit* p.328.

3 *Ibid*, p.740.

4 V. Sankara Sastri, *Ayurveda Itihasamu*, Telugu Akademy, Hyderabad, 1987, p. 179.

5 P.V.Sharma, *Ayurved ka Vaijnanik Itihas*, Caukambha Sanskrit Pratistan, (Varanasi, 1926), p.122.

6 Contra. p.50

that he was going to compose a *kāvya* which would procure health to the diseased.

Lōlambarāju explained many prescriptions addressing his lover Ratanakala. The fact that this work gained a great popularity can be evidenced by the availability of a number of manuscripts all over India. Scholars belonging to various regions wrote commentaries to it.¹ His other works are: *Camatkāra Cintāmaṇi*,² *Vaidyavatamsa*³ (a medical lexicon) and *Vaidyavinōda*.⁴

Lōlambarāju was undoubtedly an outstanding scholar and a great physician. He had great belief in the professional ethics and expected the patients to be strict in the maintenance of prescribed regimen. He advocated prohibition of quacks from the society.⁵

KONḌUBHAṬṬU

Konḍubhaṭṭu was a great scholar-physician under the Reddi kings of Kondavidu. He was a recipient of great honours by the Reddi kings. His son Ramacandra also was a great scholar. He wrote a commentary entitled *Padamanjuṣikāvyaākhyā* to Bhōja's *Campū Rāmāyaṇa*. In his work, Rāmacandra mentioned his father Konḍubhaṭṭu as the incarnation of Lord Dhanwantary in the world.⁶ It indicates that Konḍubhattu was a profound scholar in Ayurveda. Except this source, we do not find any other information mentioning Konḍubhaṭṭu as a physician. He is wellknown as a scholar both in Sanskrit and Telugu. He and his son were mentioned in the Mancalla grant of Vemareddi, the Reddi king of Kondavidu. This epigraph dated S' 1262 (A.D. 1340) gives a brief genealogical line thus:⁷

1 *A Checklist of Skt. Med. Mss.*, p.65.

2 *Ibid.* p. 14

3 *Ibid.* pp. 71-72.

4 *Ibid.* p. 72.

5 *Sadvaidhyajivana*, pp. 30, 37.

6 M. Suryanarayana Sastri, *History of Sanskrit Literature*, Andhra Saraswata Parishat, Hyderabad, 1961, p. 358.

7 *Reddi Sancika*, Appendix, pp. 3-9.

Callā Oubhaḷabhattāraka
Vaijjhalabhattāraka
Konḍubhaṭṭa
Rāmacandra

Rāmacandra, the donee of this grant was given a house-plot in Mancalla village. This reveals the fact that the great physician Konḍubhaṭṭu belonged to the coastal Andhra region.

INDRAKANṬHI VALLABHĀCĀRYA

Vallabhācārya or Vallabhēndra of Indrakanṭhi family of Śrīvasta gōtra and āpastambha sūtra was of the prominent medical scientists of medieval Andhradesa. He introduced himself in the introductory verse and the colophon of his medical work *Vaidyacintamani* that he was wellversed in all *sastras*, an eminent scholar in the Science of Medicine and versed in all scholarship and knowledge.¹

We do not find any information regarding his native place or date. He was the son of Amarēśwarabhattāraka. Though he introduced himself as a great poet, we do not find any other literary works on his name. In the triennial Catalogue of Manuscripts in the Governemnt Oriental Manuscripts Library, Madras, there is a palm-leaf manuscript of the book entitled as *Cintāmanyupanyāsālu*.² The author is mentioned as Yallubhaṭṭa of Kanthi family. In some manuscripts of *Vaidyacintāmaṇi* also Vallabhendra is mentioned as Yallubhaṭṭa.³ Instead of writing Indrakanṭhi family, the scribe wrote *Kanṭhi* only. *Vaidyacintāmaṇi* was the result of his long-run and zealous research in the field of medicine. Vallabhācārya explained many new diseases and prescribed many wonderful treatments. In the field of diagnosis also, he explained new methods. In the daignosis of the venereal diseases, he introduced the method of testing urine by boiling it.⁴ He found out some *mahājwaras* and classified them under

1 *Vaidyacintamani*, V.R.Sastrulu & Sons, (Madras, 1925), 1-2 & the colophon.

2 *A Triennial Catalogue of Mss.*, GOML, (Madras, 1939-40), Vol. X, p. 8343.

3 TSML : D. 765, B. 10771.

4 *Vaidyacintamani* I, p. 772.

a separate division.¹ He observed that there were twenty other *kāsalu* which were not identified previously and proved the existence of *Bangālakāsa*, *Mandārakāsa*, etc. with their characteristics. He explained some other characteristics of diseases which were not mentioned in the previous medical works. As time passes on, generally some new diseases occur. Vallabhācārya keenly observed the characteristics of new diseases and found out the prescriptions against them.

Vallabhācārya had a good knowledge of the *maeria medica* also. It seems that he maintained a laboratory in his own hospital and continued research on many things relating to medicine. He invented many new drug substances and their effects and characteristics.

Vallabhācārya's work was quoted by many scholars on medicine. Basavarājū, who lived between A.D. 1450-1525 referred *Vaidyacin-tamani*.² Hence it is clear that *Vaidyacin-tamani* is quite earlier than *Basavarājīyamu*. Vallabhācārya took some verses from *Bahatagrantha*,³ written by Bahatacarya at about A.D. 1300 or in the early fourteenth century. Especially the verses expalining the *aṣṭasthāna pariksa* were taken without any change. Hence it is probable to think that Vallabhēndra might have lived in fourteenth or fifteenth century. The great scholar in Ayurveda, referred in the Brahmana Kraku grant⁴ namely Śrigiri Paṇḍita is mentioned as the son of Vallabha, who belonged to Śrīvatsa gōtra. Laxmaṇapaṇḍita, the renowned scholar-physician in the court of Bukka II also introduced himself as the son of Vallabhēndra of *Srivatsa gotra* and *apastambha sutra*. The grant of Brāhmaṇa Krāku is dated in S' 1298 (A.D. 1376). Vaidyavallabha is written in the reign of Bukka II, i.e., A.D. 1404-06. The *gotra* and *sutra* of the three scholars, Vallabha, Śrigiri and Laxmana Paṇḍita, are one and the same. The last two belonged almost to the same period. There is scope to believe that these two Ayurvedic scholars were the brothers and Vallabhēndra might be their father. If it is so, Vallabhēndra, the author of *Vaidyacin-tamani* can be identified as the scholar who lived in the first half of the fourteenth century A.D. Unfortunately there is

1 *Vaidyacin-tamani* pp. 36-135.

2 *Basavarājīyamu*, I-1.

3 *Vaidyacin-tamani*, I, p.2.

4 *Epigraphic Andhrica*, II, pp. 73-87.

no mention of the name of the grandfather of either Śrīgiri or Laxmaṇapandita. But one thing can be stated definitely that Laxmaṇapandita must be a son of an Ayurvedic scholar and practitioner, since the kings preferred to appoint a physician as *Prāñcārya*, who belonged to a family of physicians.

Vaidyacintāmaṇi was translated into Telugu twice,¹ one by Devulapalli Venkatanarasakavi and the other by Dhenuvukonda Kesavakavi. It indicates the popularity of the work in Andhra region. The palm-leaf manuscript copies of *Vaidyacintāmaṇi* by Vallabhēndra are found available throughout the country. It was quoted by many Indian scholars. Especially in South India, it became a source-book for the later works on medicine.

SRĪGIRIPANDITA

Brahmana Krakū, a village in the Pakanati *viṣaya* was a centre of learned scholars. An epigraph from this village dated S' 1238 (A.D. 1376)² registers the grant of the village Krakū to the Brahmins by Harhara II for the merit of his father after renaming it as *Bukkarāyapuram*. In this grant, we find the name of an Ayurvedic scholar Srigiripandita among the donees. He was mentioned as the son of Śrīvallabha of Srivatsa *gotra* and was described as the foremost among the scholars of Ayurveda and Yajurveda. It seems that he was the brother of Laxmaṇa pandita, the author of *Vaidyavallabha*, who was also mentioned as the son of Vallabha of *Vatsa gotra*. Srigiri was the contemporary of Sāyana who was also mentioned as one among the donees of this grant.

LAXMAṆA PANDITA

The services of surgeons were very much needed in the war camps. Those who were proficient in the service of medicine as well as martial arts were appointed as war-physicians. Laxmaṇācārya was one among

1 *A Des. Cat. Tel. Mss.*, GOML, Vol. XI, Nos. D. 2406, 2458.

2 *Epigraphia Andhrica*, II, pp. 73-87; *Bharati*, III, March, 1926, pp. 89-95.

such persons. He was the *Prāṇācārya* or the personal physician of Immadi Bukkaraya who ruled the Vijayanagara Empire during A.D. 1404-06. N.Venkataramanaiah was the first historian to identify him and his medical work *Vaidyavallabha*. Then D.V.Subbareddi and B.Rama Rao studied the manuscripts with medico-historical perspective and gave some more details about the author and his work.

“Laxmaṇācārya accompanied the king during his campaigns against the Bahmani kingdom”.¹ In the introductory chapter of his work, the author describes the circumstances in which he composed the work. The king who, as a Prince, conducted many expeditions and conquered some tracts, came to recognise the importance of the body for the performance of virtuous deeds and also the need of up-keeping good health for the preservation of the body. Aware of the great learning of his personal physician, the king asked him to compose a work “which is beneficial to all and is according to the sciences and which is the key to attain intellect and long life.” Laxmana Pandita obeyed the request of the king and compiled the work called *Vaidyavallabha*, perhaps after the name of his father (Vallabha).

Laxmaṇācārya states that he belongs to a family of *Vatsa*. It means that he belongs to *Śrīvatsa gōtra*. In the colophons of this work, it is mentioned that the author was the son of Vallabha Surin. The suffix *Surin* to the name of his father indicates that his father too was a great scholar.

Vaidyavallabha deals with the diagnosis and treatment of various diseases like other compilations of medieval period. Some of the subjects dealt with are: fevers with different types; bleeding piles; urinary diseases; tumours; gastric diseases; anemia; jaundice; diarrhoea; abortion; miscarriage; diseases of women, epilepsy; eye-diseases; diseases of teeth and head; fistula in ano. Apart from the diagnosis and treatment of the diseases, it gives for the cure of diseases, the propitiatory rites which are called by the name *karmavipākā*.²

1 *Further Sources of Vijayanagara History*, II

2 D.V.Subba Reddi & B. Rama Rao, “A Rare Sanskrit Medical Manuscript of Early Vijayanagara Kingdom”, *Bulletin, IHM*, II, p. 64.

As a royal physician, Laxmaṇācārya accompanied the king to the war-camps also. It reveals the fact that he was an expert physician. He might have belonged to the family of physicians. But we do not find any information about the other family members.

NITYANĀTHA SIDDHA

He was another scholar physician who lived in Srisailam area at about fourteenth c.A.D.¹ He was a *Rasasiddha* who formulated many *rasa* drugs. In his work *Rasaratnākara*, he introduced himself as the son of Pārvati as the renunciator of the worldly relations. His work is published with Telugu commentary. But it is not available in full. In his work *Nityanātha Siddha* mentioned that he wrote the work after thorough study of the previous works such as *Rasārṇava*, *Rasamangalam*, and the works of Nāgārjuna, Susruta and Vāgbhaṭa in addition with the knowledge he gained at the feet of his guru and out of his own experiments. He was a great scientist in a *Rasa Siddha* system of medicine and invented many new methods in pharmacology and new remedial treatments to many diseases mentioned in eight divisions of Ayurveda. He described the drug substances available in the surroundings of Srisailam and their efficacy, the *Bauddhārāmas*, the places where mercury and other mineral substances are available, the educational centres located there, etc. in his work.

In the history of the *Rasasiddha* system of medicine, *Nityanātha Siddha* occupied an unique place and his work was quoted by almost all the writers in *Rasa Siddha* system. He was referred in contemporary literary works also as a great *Siddha* belonging to *Nātha* cult.²

1 Dr.M.Rama Rao, *Temples of Srisailam*, A.P.Govt.Arch.Services No.25, (1 Hyd. 1969), p.5.

2 *Navanātha Cariira*, p.267.

UPĀDHYĀYA MĀDHAVA

In fourteenth century, we find many persons on the name Mādhava in the Vijayanagara empire. The prefix *Upādhyāya* to the name of Mādhava indicates the fact that he was a teacher. He is the author of *Āyurvēdaprakāśa* in Sanskrit. This work is in the form of practical instruction to the students in *Rasaprakriyas*, while the *gurus* are making preparations, the students are witnessing and learning the minute pharmacological details of *Rasauśadhas*.

Mādhava mentioned the word “*Var̥ka*” as a word common usage to *Suvar̥ṇa*. It is a Telugu word. Even now people use the word “*Varakat-tuta*” to mean to test gold by rubbing it on a touchstone. Except in this work, in no other medical work the word *varakam* is used to mean *Suvar̥ṇa* perhaps, Upādhyāya Mādhava might be a guru in Srisaillam teaching the students the preparation of *rasauśadhas*. The description of *Rasa* drugs in his work reminds us of a description in *Navanātha Caritra*, Telugu work about the preparation of *rasasiddha* drugs by the *gurus* while the students were helping them.¹

The palm-leaf manuscript copies of this work are available in Bhandarkar Oriental Research Institute,² Oriental institute, Baroda³ and in the library of Asiatic Society, Calcutta.⁴

ANNAYA VAIDYĒNDRA

He was a notable physician who lived during the reign of Praudha Devaraya II. An inscription from Draksarama⁵ dated S' 1352 (A.D. 1430), records the gift made by him to God Bhīmēśwara of Drāk-ṣārāma. In this inscription, he is mentioned as *Vaidyēndra* (king of physicians) and the son of Kēśavācārya of *Gautama gōtra*. This is a

1 *Navanātha Caritra*, p.296

2 BOR . 19, 20

3 OIB : 572

4 ASC , III, B.10, III-B, 9; G.11221

5 *SII*, IV, 1374.

small record and contains no more information regarding the physician. His title indicates that he was an expert physician in the then society and the grant made by him reveals the fact that he was financially in a good position.

MALLĀRI PANDĪTA

He was a scholar not only in Ayurveda but also in the veterinary science. He wrote an *asvayurveda grantha* known as *Āśvāyurvēda Sārasindhu*¹ or *Sārasindhu* and a general medical work known as *Vaidyakalpataru*. The colophon of *Āśvāyurvēda Sārasindhu* informs us that Mallāripandita was the son of Kēśavapandita.

Two palm-leaf manuscript copies of *Vaidyakalpataru* are available now.² The colophon of this medical work also mentioned Mallāripandita as the son of Kēśavācārya. His preceptor Amarēśwara was mentioned as the son of Cina Vallabha Pandita who belongs to *Parāśara gōtra*. Amarēśwara Pandita was mentioned as a great scholar and had the title *Kavi Vaidya Trinētra*.³ Mallāripandita was mentioned as not only a great scholar but also an expert physician. It is mentioned that his poetical talent and art of healing stood as exemplary to the scholars of the day other.

The Dākṣārāma inscription dated S' 1352, corresponding to A.D. 1430⁴ registers the grant made by one Annaya Pandita, son of Kēśavācārya of Gautama *gōtra*. Annayapandita is mentioned as Vaidyēndra. It seems that it was a family of physicians. Mallāripandita might be his another son.

1 *A Checklist of Skt. Med. Mss.*, p.19, No. 73.

2 GOML : R 5489; ASC: G 10491.

3 *A Des. Cat. Tel. Mss.* GOML, XI, No. D2452, pp. 2724-25.

4 *SII*, IV-1374.

ARUNAGIRINĀTHA

Arunagiripandita or Arunācalapandita introduced himself in his two works i.e., *Guṇapāṭha*¹ and *Vaidyasāramu*² as the son of Rāmacandra. Except this information, nothing can be known from these works. The first one is a lexicon on *materia medica* given in Sanskrit verses explaining the characteristics of the substances which are given in Telugu. And the second work is written in Telugu verse form.

There are two other works namely *Sōmvalīyōgān* and *Mandaprahasanam* and a contemporary on Sankara's *Soundarya lahari* which are written by Arunaginātha. His maternal uncle Ḍiṇḍimabhaṭṭa I, who was the court-poet of Devaraya I (1406-1422) was defeated by Srinatha Pandita. It seems that Arunagiri also bore the title Ḍiṇḍima after his maternal uncle. After him, all the descendants of the family received the title. The Ḍiṇḍima family produced many literary works under the patronage of the Rayas of Vijayanagara. One Rājānātha Ḍiṇḍima II wrote *Sāḷuvābhyudayam* under the patronage of the Rayas of Vijayanagara. One Rājānātha Ḍiṇḍima II wrote *Sāḷuvābhyudayam* under the patronage of Saluva Nṛsimha. Ḍiṇḍima Sārvabhauma, his son, was the author of *Ramabhyudayam*. The colophon at the end of the fifth canto of the work shows that the poem was written by one Sōṇādrinātha, also called Ḍiṇḍima Sārvabhauma, son of Abhirāma or Rāmacandra. Arunagiri II was the author of *Vīrabhadra Vijaya* and Rājānātha III wrote *Acyutarāyābhyudayam*. Arunagiri I, son of Ramacandra and his maternal uncle Ḍiṇḍima I were the contemporaries to Srinatha Pandita. Veturi Prabhakara Sastri believed that Arunagiri I was the poet who was defeated by Srinatha Pandita. But Nelaturi Venkata Ramanaiah proved with the help of many sources that it was Ḍiṇḍima I (uncle of Arunagiri) who was defeated in the court of Praudha Devaraya I at the instance of

1 A Checklist of Skt. Med. Mss. in India, No. 312, p. 25.

2 A Des. Cat. of The Tel. Mss. in the GOML, XI, No. 2469.

Candrabhusana Kriyasakti.¹ Thus the genealogical line of the Dindima family is :

Rāmacandra (also called Rājānātha)
 Aruṇagirinātha (nephew of Dīndima)
 Rājānātha
 Aruṇagiri
 Rājānātha

On the basis of available sources, scholars opined that Aruṇagirinātha lived in Tiruvannamalai.² He dedicated his medical work *Vaidyasāramu* to Apitakucāmba and Arunagirisa who were seated at Aruṇācalam (Tiruvannamalai). Perhaps it might have been the seat of his religious faith. That's why, it seems he settled there in his later life. His works *Guṇapāṭha* and *Vaidyasāramu* reveal his scholarhsip in Telugu and Sanskrit. As he was the contemporary of Devaraya II (A.D. 1423-46), his works too should be considered as the works of fifteenth century. The available manuscript copies of *Guṇapāṭha*³ indicate the fact that this work was extensively read and followed in South India. A literary work⁴ known as *Paramayōgīvilāsamu* refers this work as followed by a physician described in it. It is a work on *materia medica* describing the efficacy of substances.

Vaidyasāramu is available in part⁵ and it deals with the method of finding out the nature of the disease on the observation of the moods, posture, characteristics, etc. of the messenger who brings the news of the illness to the physician.

A scholar of only a literary celebrity cannot write a dictionary on *materia medica* and a work containing the essence of medicine. The available part of *Vaidyasāramu* indicates the fact that he wrote the

1 N. Venkataramanaiah, *Vajmaya Vyasamanjari*, pp. 42-43.

2 T.V.Mahalingam, *Admn. and Social Life*, II, p. 294

3 GOML: 13263, 64, 65 & 13266; GMLT: 16615A; TSML: 11053; OLM: 1701, 3834.

4 *Paramayōgīvilāsamu*, p. 450.

5 *A Des. Cat. Tel. Mss.*, GOML, XI, p. 2739.

work with much observation in his profession as a physician. He might be a physician attached to the religious institution at Aruṇācalam.

THE PARAHITA - PHYSICIANS

In some of the inscriptions of medieval Andhradesa, we find references to a category of physicians known as '*parahitas*'. Mēḍa mentioned in the K.B.Museum inscription is described as well versed in medicine, especially *parahitavidhi*.¹ Here *parahitavidhi* is mentioned as a separate procedure in medicine. Perhaps the *viṣavaidya*, or the treatment of snake or scorpion bites might have been called as *parahitavidhi* since any remuneration is prohibited in this treatment. It is a wellknown fact that even today such kind of treatment along with incantations is supposed to be done without taking anything in return. If any remuneration is taken, it is believed that the treatment will be ineffective. Hence such kind of treatment might have been called as *parahitavidhi*. Afterwards, especially from fourteenth century, many physicians of medieval Andhradesa took credit in identifying them as *parahitas*. The science of medicine itself was known as *parahitācaraṇavidya* and the physicians who treated the patients without expecting any remuneration from the people were called as *parahitas* or *lōkōpakāras*.

The Akkalapudi grant dated A.D. 1368, two Ponnupally grants dated A.D. 1404 and 1408, the Kaluvaceru grant dated A.D. 1423 and the Kondapalli record dated A.D. 1546 were identified as the epigraphs which refer to the parahita-physicians.

PARAHITĀCĀRYA OF AKKALAPŪḌI²

He was a court-physician of Singamanāyaka, the chief of Korukonda. He was equal to minister in status. This record dated S' 1290 registers

1 *A Corpus of Telangana Inscriptions*, Part IV, pp. 104-109.

2 *EI*, XIII, No. 24.

a grant made by Singamanayaka to his physician. Parahitācārya of this grant belonged to Atreya *gotra* and to the family lineage of Kālanātha Bhatta. The genealogy that can be drawn from this record is:

Sage Atri
Kālanātha Bhaṭṭa
Parahita
Rāmacandra
Parahitācārya (the donee)

THE PARAHITAS OF KALUVACERU GRANT¹

This grant made by Anitalli dated in S' 1345 (A.D. 1423) refers to the gift of the village Kāluvaceru after renaming it as Annavaram to a physician called Parahitācārya. The epigraph describes the family history of the physician in detail. It describes the good character, generosity and wide range of knowledge of the physicians of this family. The genealogical line that can be traced from this grant is:

	Parahita of Ātrēya gōtra	
	Kālanātha	
	Parahita	
	Rāmanātha	
	Parahita	
Kālanātha	Parahita	Dēvanārya
Parahita	Dēvanārya	Varadārya
(donee of the grant)		

The donee Parahitācārya is said to be the son of Ramacandra and belonged to the family of Kālanāthabhaṭṭa. But the Kaluvaceru grant which gives more information with regard to the genealogy of this family, does not mention Kālanātha before Rāmacandra, father of Parahitācārya. Perhaps one of the predecessors of Parahita family might be Kalanatha Bhatta. From these two inscriptions, we come to

¹ *Āndhra Sāhitya Parishat Patrika*, Vol.I, pp. 93-113.

know of five Parahitas and two Kālanāthas. Ramacandra of Akkalapudi grant and Rāmanātha of Kaluvaceru grant seem to be one and the same person.

THE PARAHITA OF KASYAPA GŌTRA

Two other inscriptions from Ponnupalli¹ refer to the scholar-physicians who were mentioned as born in Parahita family. The earlier inscription from this place dated S' 1326, (A.D. 1404) records the gift of a village named Ponnupalli on the southern bank of the river Krishna on the solar eclipse in the presence of Lord Someswara in Velanati region near Kondavidu. The donee was one Bhaskararya, who was called the Dhanwantari of the world and was a Prince among the scholar-physicians. He was mentioned as born in a family called Parahita, a title which was acquired by a predecessor on account of his saving the life of a snake, in whose throat a bone of a frog was stuck-up and was causing intense suffering and risk to life. He belonged to āpastambha *sūtra* and Kasyapa *gōtra*. He was the son of Parahita and was a pious man.

The latter record from this place dated S' 1330 (A.D. 1408) records the gift of the same village to Singanarya by Peda Komati Vemareddi, the king of kings.

Some scholars believed that there was a Parahita system of medicine prevailed in medieval Andhradesa and all the Parahita physicians belonged to a family. But the keen observation of the available sources does not allow us to agree the above opinion.

The donees of the above two records belonged to Ātrēya *gōtra*. The Kondavidu record does not mention the *gotra* of its donee i.e., Parahitapanditulu, the *gotra* of the *Parahitas* referred in two Ponnupalli records is mentioned as *Kasyapa*. In these inscriptions. There is a reference to a story which reads like one of the fables or puranic tales. It is interesting to note that the story is attributed to the credit

1 *Andhra Sarvaswamu*, II(2), p. 64.

of predecessors of both the families. There is a possibility that a member of the Kaśyapa *gōtra* might have married a girl from Ātrēya *gōtra* and her son and his successors might have claimed the credit of the achievement of their maternal predecessor. Or it might be a mere fable narrated in the inscriptions to highlight the compassion for all creatures in their suffering and to illuminate the noble ideals of the medical profession.

The Ponnupalli grants give the genealogy of the family thus:

Periavilla of Kasyapa gotra

Bhāskarārya

Vijñānārya

Singanārya

PARAHITA PAṆḌITULU

Another inscription from Kondavidu dated S' 1468 (A.D. 1546)¹ belonging to the regnal period of Sadasiva Raya of Vijayanagara, records the gift made to several scholars. Though the name of the donor is not clear, it seems that Āravīṭi Rāmarāju is the donor. A physician named Parahita Paṇḍitulu is mentioned among the donees. But we cannot find any other details about his family as the record is damaged.

The contemporary poets also used the word *parahitācaraṇa vidya* and *parahituḍu* indicating the meaning 'medical science' and 'physician' respectively. Venkatanatha, in his work *Pancatantram* narrated a story of a Brahmin who saved a boy who was a victim of a snake bite with his knowledge in *parahitācaraṇavidya*.² Pothana described the parahitamu of Lord Siva, who saved the living-beings from the danger of poison³ by swallowing it. Vemana used the word

1 *SII*, IV-699; *Inscriptions of A.P.*, p.258.

2 *Pancatantram*, III-354.

3 *Śrīmadāndhra Mahābhāgavatamu*, Skanda II-368.

'lōkōpakāra' as a substitute for the word 'physician'¹ which means one who is beneficial to the public.

Two inscriptions from Bāpaṭla² and one from Drākṣārāma³ refer to Sūryamantri who is mentioned as *parahitaparatantra* and "learned physician". In the K.B.Museum Plates⁴ we find another physician named Mēḍa mentioned as an expert in *parahitavidhi*. These inscriptions prove that the physicians of Andhradesa even in twelfth and thirteenth centuries also were called as *parahitas*.

It is necessary to mention one more thing here for proper understanding of the honorific term of *parahita*. There is a work namely *parahita Samhita* in the medical field written by Śrīnātha Pandita. But no other details about the author were found in the available documents of the work. Hence it is doubtful whether Srinatha Pandita is related to the Parahita families of either Atreya gotra or Kaśyapa gōtra mentioned earlier as revealed in the inscriptions. D.V.Subba Reddi who worked a lot to bring this medical work into light, found a palm-leaf manuscript named *parahitakramamu* in the Andhra Sahitya Parishat Library, Kakinada. He wrote about it thus: "It is neither an independent work nor a translation. It is a collection of important things, yogas, principles etc. copied from Sanskrit and Telugu works and from the physicians. It means it is a note book. No where in the book the word Parahita Samhita is mentioned. We cannot find the colophon of Parahita Samhita in this work."⁵ Dr Subba Reddi came to the conclusion that it might be a common medical note book of a layman or a country physician.⁶ Thus it is clear

¹ లోకపాకారము లోకవైద్యులు
 ధోగ భాగములను బొంది తుదకు
 చూర్ణ వాసన, దెగ ప్రదోహదు శాంతురులు విష్ణు ॥

² Bulletin, IHM, Vol. V, pp.198-99.

³ Ibid. pp.199-200.

⁴ Ibid

⁵ Andhra Sahitya Parishat Patrika, Vol. 32, p. 32.

⁶ Ibid.

that the term *parahita* and *parahitavidya* are related to the field of medicine during the medieval period in Andhradesa.

Thus the physicians who undertook the medical profession promoting the welfare of the living-beings, were considered to be *parahitas*, *lōkōpakāras* and *paravupakāris*. But here we should not overlook a fact that not all the physicians were called as *parahitas*. The term *parahita* seems to be an honorific title given to certain individual physicians who were scholars in all aspects of medicine and who dedicated their lives for the public service without expecting any monetary benefit from the people. The physician Parahita of Kaluvaceru grant is praised as a good person, devoid of likes and dislikes and sorrow and as having knowledge as his wealth and meritorious and as physician following the Vedic path.

THE DATES OF PARAHITA-PHYSICIANS

The available epigraphic evidence furnishes information about the dates of the *parahitas* as follows:

Name of the physician	Approximate birth dates in A.D.
1. Kālanātha	-
2. Parahitācārya	1240
3. Mallinātha	1265
4. Parahita	1290
5. Rāmanātha	1315
6. Parahita (Akkalapūḍi grant)	1340
7. Kālanātha	1365
8. Parahita (brother of Kālanātha)	1360
9. Dēvanārya (brother of Kalanatha)	1355
10. Parahita (Kaluvacēru grant, AD. 1423)	1380
11. Dēvanārya	1375
12. Varadārya	1370
13. Periaṣṭṭa	1310
14. Bhāskarārya (Ponnupalli grant, 1404)	1329
15. Villanārya	1354
16. Singanārya (Ponnupalli grant, 1408)	1379
17. Parahita Paṇḍitulu (Konḍaviḍu inscription)	1516

In tracing the chronology of the above physicians, the general historical tradition of taking 25 years as generation gap, is followed, if it is the case of the family line. In case of an individual physician who received the grant, a back date of 30 years is taken from the date of the grant to identify the approximate date of his birth. In every case, only the birth dates are drawn since it is convenient to identify the dates of their family members who were also great physicians.

BASAVARĀJU

Nilakanṭha Koṭṭūru Basavarāju was one of the greatest physicians of medieval Andhradesa. He is famous not only in Andhradesa, but also in all parts of India. He is the son of Namaśśivāya and a disciple of Ārādhyā Rāmadēśika. He is a saivite. He introduced himself in a colophon of his work *Basavarājīyam* that he is proficient in writing poetry and a crest-jewel among the physicians.¹ If we go through his work, we find out that he does not boast himself but proved himself an eminent scholar-physician.

We do not know exactly about the other writings of Basavaraju except his famous work *Basavarājīyam*. It is written in both Sanskrit and Telugu verses according to the needs and conditions of the country. To the physicians of this region, it is an important hand-book. The author had studied many medical works of high standard and gained a good knowledge of the science of medicine. In the beginning of his work, Basavaraju stated that he had started writing this book after a thorough study of many works such as "*Carakam, Madhavakalpam, Bhairavakalpam, Vāgbhaṭam, Siddhavidyābhūḥ, Siddharasārṇavam, Bhēṣajakalpam, Jātūkakarmakam, Mādhaviyam, Asvānīyam, Āyurvēdam, Sindhūradarpaṇam, Pūjyapādīyam, Dēvīśāstram, Candrakalpam, Brahmagāruḍam, Cintāmaṇi, Jyōtiṣam, Kāśīkhaṇḍa, Śārīram, Sūtram, Nityanāthīyam, Nandināthīyam, Agnimatāntaram, Matāntaram, Anyaśāstram, Cikitsāsāra, Siddhasangraham, Kar-*

1 *Basavarājīyam*, Vavilla Ramaswamy Sastrulu & Sons, (Madras, 1948), p.1106.

mavipākam and *Rēvaṇasiddhakalpam*.” He also mentioned that he was going to write this medical work so as that it would be in complete form with the description of all diseases with their characteristics, etc. in a simple style and along with Telugu verses.¹

In the starting verses of his work, Basavarāju pays obeisance to Gods Viṣṇu, Śiva, Brahma, Saraswati, Vighnēśa and Vaṭuka Bhairava.² In the second and thirteenth verses, he made separate prayers to Lord Śiva and Lord Basava respectively. He mentions that he is a Moon in the ocean-like '*Nīlakanṭha Vamśa*'.³

With regard to the place and date of Basavarāju, there is no agreed opinion among the scholars. Some scholars opine that he is a *Kan-naḍika*, and some others believe that Basavarāju, the hero of *Basavapurāṇamu* is the author of *Basavarājīyam*.⁴ But this opinion cannot be accepted since *Basavarājīyam* is much later than *Basavapurāṇamu*. Here and there he composed some verses in Telugu metrical form especially while explaining the treatment for certain diseases. These verses reveal the fact that he was a scholar in Telugu language and belonged to the Telugu region. There are some places having *māmiḍi* as prefix and suffix to their names such as 'Cīrumāmiḍi, Pōrumāmilla, Māmiḍipūdi' etc.⁵ Though his place of residence Nīdimāmiḍi can not be - - traced in modern days, it might have been once located in the Andhra region.

In Andhradesa there is a popular verse among the scholars which runs thus: "*Kṛtētu Carakaḥprōktaḥ - - Kalau Basavakaḥ smṛtaḥ*".⁶ Though it is not probable to think that it is written in the beginning of *Kaliyuga* on the basis of the above verse, it must have been written somewhat earlier than the popular works written in Andhradesa.

1 *Basavarājīyam*, I- 5 to 12

2 *Ibid*, 1-1.

3 *Ibid*, verses, 2, 3 & 13.

4 Sri Govardhana Sarma (ed), *Basavarājīyam*, Gorakṣanayantralay, (Nagapur, 1930), pp. iv-vi.

5 *SHI*, Vol, X, No.504; *Telangana Inscriptions*, II, Inscriptions of Kakatiyas, Nos. 8, 9, 10 & 22.

6 *Basavarājīyam*, p. vi.

Basavarāju referred to *Kāśīkhaṇḍamu* of Srinātha¹ which is believed to have been written in AD. 1435.² The author also gave references to *Vaidyacintāmaṇi* which is considered to be a work of fourteenth century. If we observe the *materia medica* mentioned by Basavarāju, we find that he prescribed *phirangicekka* or China-root in his work.³ This herb is introduced only after the arrival of portuguese. Though he did not explain the disease by name, its diagnosis, treatment in particular, he prescribed the herb *Phirangicekka* (China-root) in venereal diseases. Hence it is clear that he wrote his work at the time when the herb was newly introduced, but the disease syphilis had not yet spread widely. That's why Basavarāju prescribed it in general against the venereal diseases. Thus we can get the probable date of this scholar as the first quarter of sixteenth century.

In this work, altogether there are 25 chapters. Each chapter deals with each category of diseases, their causes, diagnosis, treatment and regimen to be followed by such patients, etc. On the whole it is an exhaustive work on many kinds of diseases and their treatment. Basavarāju followed the traditional systems in many places and whenever necessary he added new things. He mentioned the *Catusthana Pariksa*.⁴ He very well explained the *agnikarma*⁵ in the light of his own experience. Basavarāju explained surgery also in detail.⁶ He mentioned many new prescriptions to certain diseases.⁷

The life-saving medicines, he introduced in the treatment, were Brahmāstrarasamu, Sūcikāmukharasamu and Sūcikābharaṇarasamu. The credit of introducing the usage of mercury in powdered form and the venom of serpents in the treatment of various diseases goes to Basavarāju. The most famous *Vājīkaraṇa* medicine *Pūrṇacandrōdayamu* was first explained by this great medical scientist.

1 *Basavarājiyamu*, pp. 817-18

2 *Reddi Sāncika*, p. 300.

3 *Basavarājiyamu*, p.433.

4 *Basavarājiyam*, 1-33 to 36.

5 *Ibid*, XXII - 55, p.940.

6 *Ibid*, p.908 - 937.

7 *Ibid*, VI, VII, & VIII.

VĪRA KRISHNA

There is a manuscript copy of the medical work known as "*Kāyacikitsalu*" in the Government Oriental Manuscript Library, Madras.¹ It is not a published work. In the introductory verses of the work, the author gave some personal information regarding his *guru* and his parents. The information we get from these verses is that the name of the author is Vīrakraishna. He belonged to *Yādava* caste and his parents were Gopidevi and Raghava. Actually the author introduced himself as the son of Gopidevi. He mentioned his name in the first verse as Virakraishna, but in the verse where he mentioned his mother's name, he mentioned his name as Vira Raghava Krishna. It may be perhaps that he was the son of Raghava, but his father might have expired in his childhood and was popularly known as the son of Gopidevi. Vira Krishna mentions himself as the devotee of Visnu. In the opening verses of his work, he paid his respect to his *guru* Sudarshanayati, who was believed to be an incarnation of Narayana and who was a Vaisnavite. These verses which he wrote on his *guru* reveal his respect towards his *guru* and at the same time his *guru's* affection towards the student, his great knowledge, his principles of equality of all castes in the society, etc. It is only because of the fact that Virakraishna mentions his *guru's* name that we are saved in the effort to identify his approximate date.

It is a well known fact that the Saivites and the Vaisnavites who were sub-divided into many, made use of the healing art as a means in the propagation of their respective faiths. Especially, the *Kalamukhas* among the Saivas and the Vaisnavas of Srisailapurna family concentrated their attention on the spread of education and the development of medicine. They maintained training centres and educated the people of all castes during the later medieval period. Sudarshanayati or Sudarsanācārya was the one in the family lineage of Srisailapurna.² According to *Prapannāmṛtam* of Anātārya, Sudar-

1 *A Des. Cat. TL. Mss. in GOML*, Vol. XI, No. 2442, pp. 2714-15.

2. *Ibid.*, p. 2715

sanācārya was the son of Venkatakarya and the father of Srinivasacarya.¹ Pingali Surana in his work *Kaṭāpurnōdayamu* mentions Srinivasacarya, son of Sudarsanacarya and the descendant of Tātācārya as the *guru* of Krishnamaraju, the recipient of the book. Surana dedicated his work to Krishnamaraju when he was quite young and when his father was ruling over Nandyala as a chief at about A.D. 1567. The Nandyala *Kaifiyat* mentions that Krishnamaraju was ruling Nandyala in the reign of Venkata II,² who ruled during A.D. 1586-1614. The date of the dedication of *Kaṭāpurnōdayamu* to Krishnamaraju is decided approximately as A.D. 1568.³ It makes us believe that Krsnamaraju might be atleast 20 years old at that time. He became the desciple to Srinivasacarya by that time.

There is another clue to find out the date of Sudarsanacarya, the *guru* of Virakrishna. Tatacarya or Venkatatadesika who was the son of Srinivasacarya and the grandson of Sudarsanacarya was honoured by Krishnadevaraya in A.D. 1523 and was the *guru* of Araviti Ramaraju, the de facto ruler during the reign of Sadasivaraya. He continued his services to Srivaishnavism upto A.D. 1577 till his death.⁴ It means that he led quite a long life. If we take his year of birth as A.D. 1498, keeping the mind that he was honoured by Krishnaraya when he was 25 years old, Srinivasacarya's year of birth becomes A.D. 1473 according to historical method. Then the approximate birth-year of Sudarsanacarya becomes A.D. 1448. His successors led a long life. If we think that he too might have led a long life, he must have lived till the first quarter of 16th century. Thus we can surmise that Virakrishna might have written his work in the first quarter of the Sixteenth century, especially when there was a great popularity to Yādava caste and to Gōpāla. Virakrsna mentioned his caste with much pride and credit.

1 *contra*, p. 121.

2 *Kavijivitamulu*, p. 300.

3 *Ibid*, p. 302-304.

4 *Kavijivitamulu*, p.319.

Vīrākṣṇa must be a doctor serving in one of the Sri Vaiṣṇava centres. His work contains very valuable medicines. He himself mentions that his work contains the secrets of *mantravada*, many principles on mystic education, jugglery, tantrics, philosophy, making of *yantras*, several kinds of treatments, etc.¹ The editors of the catalogue remarked on his work that this is a work "describing several valuable medicines."² But unfortunately the work is not available in full.

VĒMANA

Vēmana was very popular as a revolutionary poet of medieval Andhradesa. He travelled through-out Andhradesa. observing the social customs and traditions and criticising in sharp terms what he had considered not proper. He warned the society against superstitious beliefs and customs with regard to health and hygiene as in case of other social evils and tried to divert the society into the right path through his natural and easy flow of verses in a simple language. Though he did not compose any medical treatise, many of his verses deal with various aspects of Ayurveda and Yoga.

According to a legendary reference, he is said to have gained knowledge in the art of alchemy. Many of his verses testify to his attempts in alchemy. But we can not state whether he succeeded in those operation or not, since his expressions in some verses appear doubtful.³ In some verses, he ridiculed the people who were engaged

1 *A Des. Cat. Tel. Mss., GOML, Vol. XI, P. 2715.*

2 *Ibid.*

3 "వేన్నెల పలుచుండి వేహు సుదేస్త్రచి
అత్త సరపు రసము వేందు ఇండ్డ
కేగుచోయి రాగి కెంచనంబగునయ్య"*

* ఇంగిలొక మనోమ ఫోమియ నేరక
చెత్రపటము ప్రోచి చేరచిరారు
బొంబ చిమేడు పాలు పొంగించి నేరడు" || నిశ్చయ ||

in transmuting the baser metals into gold. Anyway, it seems to be correct that many people tried to prepare gold by alchemical operations, but failed. Many references from the literary works of the period reveal this fact.¹ There is a popular saying in Sanskrit ("Vadabhrasto vaidyasrestah") which conveys the meaning that 'he who fails in alchemy becomes an expert doctor.' Vēmana must be one of such persons. Many of his verses reveal his knowledge in medicine and interest in medical profession.

Many things with regard to his life such as place of birth, date or period, etc., remained controversial inspite of much research work done. The dialect of Rayalasima and Nellore regions is prominent in his verses. He gives the address of his house in one of his verses thus: "village is Kondavidu, residence is in the western street and the first house to be shown by gesture".² In his verses can be found many words from Rayalasima dialect. Hence many scholars believe that he belonged to the Rayalasima region. Whatever might be his native place, he roamed about throughout the Telugu country preaching his nationalism and warning the people against the superstitious beliefs and customs.

About the date of Vēmana, there appears difference of opinion among the scholars. The dates given by various scholars are:³

	A.D.
Vanguri Subba Rao	1412-80
Sesadri Ramana Kavulu	1460-1600
Vedam Venkata Krishna Sarma	1565-1625
V.Prabhakara Sastri	1650
Bandaru Tammayya	1652-1725
R.Ananta Krishna Sarma	1700
Abbe Dubois	1675
N.Gopi	1650
Subhani	1476-77

¹ *Bhōjacaritra*, II-180; *Pancatantram*, I-80; *Rukmāṅgadacaritra*, II

² N.Gopi, *Prajākavi Vēmana*, p. 146.

³ Sri V.Prabhakara Sastri (ed), *Catupadyamanjari*, pp.75-86.

Vēmana referred to two historical persons in two of his verses. They are Gunṭupalle Muthana who died in A.D. 1623 and Rāyana Bācha. The scholars found out more than one person having the name Rāyana Bhāskara who flourished from fifteenth century to seventeenth century. Veturi Prabhakara Sastri found a *Cāṭu* verse which refers to Gunṭupalle Viraya Muttaya and to one Rāyana Bhāskara in the same verse.¹ Vemana used many persian words which indicate the influence of the Muslim culture. This influence can be seen only in the later medieval period. But we cannot say that he belonged to the later part of seventeenth century since he did not know capsicum. He described pepper while mentioning about '*mirapaginja*'.² Capsicum is introduced in India by the Portuguese in the early part of the fifteenth century. It might have taken about 100 years to become popular in our country. By the time of Vēmana, it seems, it was not in popular use. When capsicum was introduced in India, it was called as '*miryapukaya*' and in course of time, it became '*mirapakaya*' which was used as a substitute to pepper. Hence Vēmana's date can be considered as the period having Muslim cultural impact and a period when Capsicum was not in popular use. Vēmana is believed to have tried to prepare gold with the help of his knowledge in alchemy and failed in it. These activities were taken up during fourteenth and fifteenth centuries and in sixteenth and seventeenth centuries they were ridiculed by almost all the scholars. In the later part of his life, Vēmana felt pity for the ignorance of the people. He said in a verse thus:³ "people require salt and soup and not gold to survive in this world. But what a wonder that the people take pains to get gold while

1 N.Gopi, *Prajakavi Vemana*, p.130

2 "మిరప గింజ మూత మొద నల్లగ మందు
 కొలికి లానుఁ బోడఁ బాతును మనుషు
 సెప్పునులగు వారి సారమిట్లుండు || పితృ||"

3 "ఉప్పు చింతపండు మారార మండంగ
 పైమనున కెట్లు రెల్ల భమలు "

salt and tamarind are available in every village!'. Thus Vēmana, who in the beginning engaged himself in such activities to prepare gold, ridiculed them in the end. Keeping all these facts in view, his date can be traced approximately between A.D. 1550-1625. Scholars identified a verse which indicates his year of birth as Nandana. Due to lack of information relating to the day of the week, it is not possible to fix the date according to the Christian era. The cyclic year Nandana occurs in A.D. 1532 and 1592 in sixteenth century. The year A.D. 1592 is too late a date if we keep in mind that he does not know capsicum. He might have born in A.D. 1532 and lived till 1625 as he was alive after the death of Guṇṭupalle Muttana (A.D. 1623). At the time of the demise of Muttana, Vēmana might be 91 years old, if we believe that he was born in A.D. 1532. Thousands of his verses and the variety of things dealt with, the contradictory and changing opinions reflected in those verses indicate the fact that he might have definitely led quite a long life. Hence his date can be considered as A.D. 1532-1625.

As many other Saiva ascetics, Vēmana, too seems to an expert in the art of healing.¹ The references from the verses of Vemana not only reveal his knowledge in medicine but also give a glimpse into the beliefs, customs and practices with regard to the maintenance of health, hygiene and healing-art of the people. He led a remonstrance against the superstitions in this field and advocated the importance of social service and humanitarian outlook needed in the medical ground.

BHĀVAMISRA

Bhāvamiśra was the most famous scholar-physician of Medieval Andhradesa. He gained an outstanding reputation all over the country. The manuscript copies of his work "*Bhavaprakasa*" are available extensively in almost all parts of the country.² His work hints

1 Incidentally the same is discussed in the following chapters.

2 A Check-list of Sanskrit Medical Manuscripts in India, p.12.

the fact that he might have toured not only throughout our country but also in the foreign lands, observing various systems of medicine. The colophon in *Bhāvaprakāśa* informs us that he is the son of Laṭakana (miśra). Now a days, the dictionaries give the meaning of the word 'misra' as 'a scholar'. In the medieval period, the Saiva scholars who followed the 'misra school of Saiva Philosophy' were called as *misras* or *misra saivas*. Saivism consisted of five schools i.e., 1. *Suddha Saivism* or *Kasmira Saivism*, 2. *Drāviḍa Saivism*, 3. *Miśra Śaivism*, 4. *Sāmānya Saivism* and 5. *Vīra Saivism*.¹ The Miśra Saivas worship all the deities, but have special regard for Siva. They follow the policy of toleration towards other faiths. They perform the worship of *Pāñcāyatana*. Their plan of worship is as follows:²

Nā		Ra
	Śaṇ	
Dē		Ga
Śaṇ :	Śaṅkara	
Nā :	Nārāyaṇa	
Ra :	Ravi	
Ga :	Gaṇapati	
Dē :	Dēvi	

In Bhāvamīśra's work *Bhāvaprakāśa*, we can find his liberal religious views. He paid his regards to Sankara (Sōmēśa), his consort (Dēvi), Ravi (Āditya), Ganapati, Viṣṇu (Nārāyaṇa) and the Brahmins.³

Laṭaka or Laṭakana is a peculiar name. The word '*laṭaka*' means 'a lewd-fellow'. The suffix *miśra* indicates that he is a Saiva scholar. The two words appear quite contrary. It seems that it is not his original name. The literary sources inform us that the rich people in those days gave importance to sensual pleasures and luxuries. There was no restriction from any side against prostitution. The state also recognised the profession and collected tax from them. The prostitutes

1 Sri K.Sitaramaiah, *Kuruganti Vyasaiahari*, p. 48.

2 Sri K.Sitaramaiah, *Kuruganti Vyasaiahari*, p.48.

3 *Bhāvaprakāśa*, Pūrvakhaṇḍa, vv. 1-3.

employed the physicians who knew the *Rasa* medicine at their homes.¹ Laṭakana might have worked as a physician in such places treating mostly the diseases that occur on the genetic organs. Hence he might have been called as Laṭaka Miśra (a scholar of lewd people or a *pandit* treating the lewd-fellows), or he must be an independent physician proficient in treating the lewd-fellows, who became victims to venereal diseases.

With regard to the place of Bhāvamiśra, scholars expressed different opinions. While writing about the *ṛtucaryā*, the division of seasons in his work is according to the climatic conditions and changes in South India. It is because of the rotation of the Earth round the Sun, the seasonal changes and the 'āyanas' occur. Due to these seasonal changes, the changes in the equilibrium of the *dhātus* take place which effect the health of the living creatures. That's why the Ayurvedic scholars dealt with *ṛtucaryā* in their works. They prescribed the dietetic habits in accordance with the seasonal changes. In the South, due to the geographical conditions prevailed, there remains a lengthy rainy season. That's why there is observed the season 'prāvṛt' in addition to the rainy season. In the north due to the lengthy winter season, there are observed two *ṛtus* during this period i.e., Hēmantha and Śiśira. There are observed altogether six *ṛtus* including Prāvṛt in the South and including Śiśira in the North.² According to Indian Astronomy, there are two *ayanas* in a year. According to Caraka, the *Varsa*, *Sarat*, and *Hemanta ṛtus* come under the Uttarāyaṇa.³ Susruta mentions six seasons including Prāvṛt and starts the counting of the year from the starting of 'mīna' will the closing of 'kumbha', each season having two months. According to this division, *Karkāṭaka* and *Siṃha* come under *Pravṛt*. The *Dakṣināyana* starts with Prāvṛt and not with *grisma* as mentioned in *Caraka Samhita*. Hence *Varsa*, *Sarat* and *Hēmantha* come under *Dakṣinayana* and the period consisting of *Vasanta*, *Grisma* and *Pravṛt* is considered as *Uttarāyaṇa*. Just as the

1 *Bahulāśva Caritra*, Srikrśnarayandhara Vijnana Sarwaswamu, p. 386.

2 *Vēṅkaṭādriyamu*, Introduction, p. 19.

3 CS, I.6.

seasonal division deviates, so as the starting of the *ayana* also will be effected. The starting of the passage of *Kanya* which marks the starting of *Varṣartu* becomes the starting of *Dakṣināyana*. The starting of *mīnasankramaṇa*, which marks the starting of *Vasanta rtu* is noted as the entry of *Uttarāyana*. This description of the seasonal changes is relevant to Madhyadēśa. Hence Susruta is identified as the scholar hailing from Madhyadēśa.

Bhāvamiśra explained six seasons including *Prāvṛt*. According to him *Vasanta rtu* includes *Kumbha* and *Mīna* and *Hēmanta* season consists of *Dhanur* and *Makara Sankramaṇas*.

Varṣa rtu consists of *Simha* and *Kanya Sankramaṇas*. The starting of *Varṣa rtu* with *Simha-sankramaṇa* marks the starting of *Dakṣināyana* and the starting of *Vasanta rtu* with *Kumbha-sankramaṇa* marks the entry of *Uttarayana*. This description of seasonal changes can be identified as relevant to South India. According to Bhāvamiśra's description of the changes of seasons, the months *Māgha* and *Phālguna* form *Vasanta rtu*. The trees blossom in this season. In the South, generally, the trees like mango, neem, etc. blossom in *Māgha* and *Phālguna*. The seasons of the year have an effect on the *dōṣas*. Among the causes of the diseases, the climatic characteristics of heat and cold of the various seasons is the most important one. That's why, the physicians of ancient and medieval India, suggested the modifications in the dietetic regulations to be undertaken according to the change of the season. Bhāvamiśra explained it keeping in mind the climatic conditions prevailed in South India. Hence he can be considered as a South Indian.

Some scholars wrote that he belonged to Madrapuri.¹ P.C.Ray wrote in his work *Antiquity of Hindu Medicine* that Bhāvamiśra worked as an *ācārya* in Kasi University and taught Ayurveda to 400 students at about A.D. 1550.² Jolly also observes³ that Bhāvamiśra is said to have been a famous physician in Benaras. He also mentions

1 T.Venkatadri, *Venkatadriyamu*, Introduction, p.7.

2 *Bhāvaprakāśa*, Introduction, pp.iv-v.

3 Jolly, Julius, *Indian Medicine*, pp. 2-3.

that a manuscript of his work *Bhāvaprakāśa* is kept in Tübingen and dated A.D. 1558-1559. He expresses his opinion that the copy cannot be much older than the original, because syphilis and the drug which were imported to India by the Portuguese at about A.D. 1535 are found explained in this work. P.V.Sarma informs us that Bhāvamīśra used the word 'Mudgal' for Mughal.¹ He opined that he lived in the Moghal empire under the rule of Akbar. But it cannot be acceptable, since Mudgal cannot become Moghal. There is a place on the name 'Mudgal' in Deccan. It is situated in the Krishna-Tungabhadra doab. This area became a bone of contention between the Rayas of Vijayanagar and the Sultans of Bahmani Kingdom. Raicur and Mudgal are the two formidable forts in this region. When Devaraya I was ruling the Vijayanagara empire, Mudgal was under the rule of Bahmani king. It is a wellknown fact that Ferishta narrated that Devaraya I led an expedition to Mudgal to bring Mudgal beauty, a goldsmiths' daughter to his harem.² After his accession to the throne, Saluva Nrsimha (A.D. 1486-91) captured Mudgal and Raicur and added them to the Vijayanagara empire. After his death, again the Raicur doab was re-occupied by the Bijapur Sultan. Krsnadevaraya again captured these forts but after his death, they slipped away from the Vijayanagara authority. After some time, these forts were captured by Ramaraya and remained under the Rayas until the battle of Raksasi-Tangadi. Bhavamisra wrote his work *Bhavaprakasa* in the middle of the sixteenth century. It can be proved by the fact that he explained the disease syphilis which spread first in South India by the Portuguese. It was during the reign of Krishnadevaraya that they developed their trade relations with the kingdom of Vijayanagar. Many merchants from Portugal settled in the kingdom. Bhavamisra explained that this disease spread in India because of the Portuguese and hence named it as *Phirangirōga*.³ He prescribed the 'China-root' which was also introduced by the Portuguese in India. Thus it is

1 Dr. P.V.Sarma, *Ayurved Ka Vaijnanic Itihas*, p. 141.

2 Ferishta, Briggs, *The Rise of Mohammadians* II, p. 380.

3 *Bhāvaprakāśa*, Madhyamakhandā, p. 806.

accepted by all the scholars of History of Medicine that Bhāvamiśra belonged to the mid sixteenth century. It is probable to think that Bhāvamiśra was the resident of South India since he prescribed the 'Rasakarpūra' medicines in the treatment of venereal diseases besides the China-root. He took this *rasa* prescription from *Rasapradīpika*, which for the first time prescribed it in *phirangiroga*.¹ He might have lived in Madrapuri (Madras)² as Sri Krishnalal Saligramji mentioned and he might have referred to Mudgal, an important place in South India. He might have lived in Vijayanagara empire, when Ramaraya was the de facto ruler of the empire. It is a wellknown fact that Ramaraya received and patronised many scholars from various parts of the country. Bhāvamiśra suggested the visit of the holy places Srisaillam and Purusottamaksetram in case of Visajwaras.³ It hints the fact that he might have visited and was in touch with those places. He fully made use of *Madanapālanighantū*,⁴ a work written in Andhradesa. He gave references extensively from Lōlambarājīyam also. These facts also support the above view that he lived in Andhradesa.

Bhāvaprākāśa is written in three khaṇḍas i.e., *Pūrva*, *Madhyama* and *Uttara* like in *Śārjñadharaśaṁhita*. He followed the works of ancient writers like Caraka, Susruta, Vāgbhaṭa, Hārīta, Vṛnda, Cakrapani, etc. and the works of medieval writers on *rasa* medicine such as *Rasapradīpa*, *Rasēndracintāmaṇi*, *Rasaratnapradīpa*, etc. Though he took many things from ancient works, he followed an independent method in dealing with the things and explained many new things he observed in his time. He gave importance to Vedic as well as Tantric system of Indian medicine. It is observed that there is an impact of

1 V.Sankara Sastri, *Bhavapradasa*, Introduction, pp.ii-iii.

2 The former name of Madras was Madurapuri. Later it was known as Chennapuri or Chennapattanamu after the name of Chennappanayaka. But it seems that the former name was not completely forgotten. It was later called by the Europeans as Madras.

3 *Bhavaprakasa*, Madhyamakhanda, p. 878.

4 P.V.Sarma, *Ayurved Ka Vaijananic Itihas*, p.141.

Unani system of medicine in many places in this work.¹ He explained many new drug substances which were not mentioned in the previous medical works. Some of them are: *khurāsāni vāmu* (black henbane),² *vasa* (*Acorus Calamus*),³ *phirangi-cekka* (China-root),⁴ opium,⁵ China-camphor,⁶ palm-date,⁷ *śimarēgu*, *mācikāya*, *rēvalacinni*, *kusumba*, *bērikāya*, acrote, rose flowers, etc. Thus he stood as an example to the other physicians as an ideal scholar who put into practice the principle of receiving any thing good after careful observation and experiment from the other systems also. He mentions in one of his verses thus: "A physician who is a scholar in the science does not stick up to the traditional science. He should observe and perceive the subject thoroughly with his own common sense."⁸ Bhāvamīśra's ideas with regard to the ideals of the profession can be appreciated. Many verses in his work hint the fact that he is an ideal physician who followed good principles in his profession.⁹ He is a broad-minded medical scientist who advised the other physicians not to be rigid in their views.¹⁰

RĀVAṆA PANDĪTA

Rāvaṇa Pandita is the author of *Arkaprakāśa*, *Bālagrahacikitsa*, *Bālatantra* and *Nāḍīparīkṣa* in Sanskrit. He also wrote philosophical commentaries to *Ṛgvēda* and *Yajurveda*. Some people identified him with Rāvaṇa, the king of Lanka.¹¹ But it is totally wrong. The author

1 *Bhavaprakasa*, Introduction, pp. i-ii.

2 *Bhavaprakasa*, Purvakhanda, p. 343.

3 *Ibid.* p. 322.

4 *Ibid.* p. 324.

5 *Ibid.* p. 363.

6 *Ibid.* p. 373.

7 *Ibid.* p. 599.

8 *Ibid.* V-34.

9 *Ibid.* V-38, 39, 56 & 101.

10 *Ibid.* V-11

11 Bhudev Mukharji, *Rasajalanidhi*, Introduction, p. xx.

of *Arkaprakāśa* belonged to the later half of the sixteenth century. It was written in imitation of *Bhāvaprakāśa*. Some of the verses are taken with minor changes from *Bhāvaprakāśa*. Only the method of making the medicine was changed and the drug substances in many prescriptions were taken without any change.

In *Arkaprakāśa*, the Unani system of making medicines (*Araq*) is explained. This system gained popularity in the later medieval period. Before that, there were no *arkas* in Indian medicine. The word '*arka*' means 'jillēḍu' (*calitrapis gigantea*) or the Sun. In the works of Bhāvamiśra, scholars in Ayurveda observed the impact of Unani medicine. But he did not explain the *arkas* (tinctures). Hence we may believe that *Arkaprakāśa* is a later work which was written on the line of *Bhāvaprakāśa*. The author of *Arkaprakāśa* explained also the disease *phirangirōga* and its treatment which were imported to India by the Portuguese in the first quarter of sixteenth century.

Ravana is said to have written commentaries to *Rg* and *Yajurvedas*. He wrote these commentaries on the lines of Sayanacarya giving importance to philosophical interpretation. The Sanskrit scholars opined that the commentaries written by Sayana guided him in his writings on Vedas. This fact indicates that he lived after Sayanacarya. '*Pudīna*' is mentioned as a medical substance first in *Nighaṇṭu Ratnākara* of sixteenth century. Ravana also prescribed *Pudīnārka*. Hence Rāvaṇa Paṇḍita might have written *Arkaprakāśa* at the end of sixteenth century or after that. As we have already noticed, Rāvaṇa composed his work closely on the lines of *Bhāvaprakāśa*. The drug-substances used are almost the same, but the only the method of preparing the medicine is different. All the preparations in *Arkaprakāśa* are tinctures. One cannot imitate the verses so closely and boldly, if he is not related to the author of the original. It is probable to think that Rāvaṇa Paṇḍita might be related to Bhāvamiśra. he might be either his son or his disciple. That's why, Rāvaṇa made use of most of the verses of Bhāvamiśra with slight changes. Bhāvamiśra also was influenced by the Unani system of medicine. In *Bhāvaprakāśa*, he expressed his opinion that a physician should not be rigid in his views and should think himself about the new developments. He might have advised Ravana who was his son or disciple to

take instruction in that system also in addition to the knowledge in Ayurveda. Then his period can be considered as the later half or the last quarter of the sixteenth century.

Rāvāna Paṇḍita's *Arkaprakāśa* is considered as "an excellent booklet containing a comprehensive treatment of all sorts of diseases by means of tinctures only." It is he who first introduced this new system into Ayurveda. He Sanskritised the word 'araq' as 'arkam'.

CILKMARRI VĒNKATĀCĀRYA

He was a scholar-physician belonging to sixteenth century. He translated a Sanskrit work known as *Bhēṣajakalpa* written by Gangādharācārya, son of Candanācārya into Telugu. He introduced himself in his work as the son of Śaraṇyapādācārya and the disciple of Kandāḷa Rangācārya. This clue helps us in getting information about his date and religious faith.

The famous Telugu poet Tenali Ramalinga had a younger brother named Annayakavi. He mentioned in his works that his *guru* was Kandāḷa Rangācārya, son of Bhāvanācārya. Proluganti Rangana, the author of *Narasimha Purāṇam* also referred Kandala Rangacarya as his *guru* in his work.¹ N. Venkata Ramanaiah proved in one of his essays that Proluganti Rangana belonged to A.D. 1540-1550.² Hence it is probable that Kandāḷa Rangācārya too belonged to the same period.

The inscriptional evidence also proves that he belonged to mid-sixteenth century. An inscription from Tirumalai Tirupati Devasthanam dated S' 1467 corresponding to A.D. 1545, registers an arrangement made by SriRangacarya, son of Bhavanacarya on the birth date of his relatives Appūvaṇṇan and his son Appan to God Venkateswara. Another inscription belonging to the same year records the grant of a village named Anumarlapūḍi (Guntur district) to one Kandāḷa

1 *Narasimha Puranam*, I-59.

2 *Bharati*, Vol. 18, pp. 17-24.

Ayyanvārlu. Kāṇḍāḷa Śrīrangācāryulu seems to be a *guru* to so many prominent people in those days all over Andhradesa. Probably he was thus popularly known as Kāṇḍāḷa Ayyamvārlu. The inscriptions which referred him were dated in the middle of sixteenth century. The scholars who referred him as their *guru* in their works also belonged to the middle of sixteenth century. Then we can undoubtedly believe that he and his desciple Cilakamaṛṇi Vēṅkaṭācārya belonged to the same period. Vēṅkaṭācārya's work *Bhēṣajakalpam* gained popularity in Andhra region.

PĀNAKĀLARĀYA

He was an eye-specialist and wrote "*Nētradarpaṇamu*", a treatise on eye-diseases. He composed his work in Telugu prose-form. In the introductory chapter, the author gave some details about his birth place and family members. He was the native of Tādepalli, a village situated in the Koṇḍavīṭi sīma. He was the son of Venkanna and Mahālxmāmma, grandson of Subbarayudu and great grandson of Rangamatya. His family name was Tādepalli and he belonged to Srivatsa *gotra*. Perhaps the village Tādepalli was the ancestral agrahara; therefore their family name might have been called after the name of the place which is located in the present Guntur district. Pānakālarāya had two elder brothers known as Vēṅkaṭapatirāya and Sītāpatirāya.¹

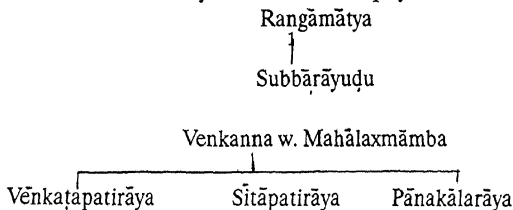
A colophon in one of his works mentions that he was a devotee of Vēṅugōpālaswāmi and the son of Rangayāmātya. But it seems to be incorrect or may be a mistake committed by the scribe. Pānakālarāya introduced himself as the great grand son of Rangāmātya. Late Nidadavolu Venkatarao opined that Venkanna, the father of Panakalaraya and grandson of Rangāmātya might have had another name as Ranganna.² It may be correct if we keep in mind our custom

1 V.Subbarao (ed), *Satakakavulacaritra*, pp. 459-60.

2 V.Subbarao (ed), *Satakakavulacaritra*, p.460-61.

of giving grandfather's name to grand son. Even today we see some people in villages called by two names - one given according to his horoscope and the other name called after the name of his grand father.

The genealogical table that can be drawn from the information given in the introductory verses of *Nētradarpaṇamu* is as follows:



About the date of Panakalaraya, we donot find any direct evidence in the text. In addition to this medical work, he composed many literary works, particularly the 'Śataka' works.

The *satakams* he wrote are¹ : 1. *Mānasabōdha Śatakamu*, 2. *Cit-tabōdhaśatakamu*, 3. *Pārthasārathi Śatakamu*, 4. *Rāmaśatakamu*, 5. *Laxmīdēvi Śatakamu*, 6. *Nṛsimhaśatakamu*, and 7. *Rukmiṇīpati Śatakamu*. But no where did he give any information about his date. He stated that he won the admiration of the kings and was honoured by them,² he did not give their names. But this statement suggests that he might have flourished when there were many local rulers in Andhradesa.

Pānakālarāya was a great patriot. A verse³ in *śiṣa* metre describing his motherland i.e., Konḍaviṭṭiśiṣa closely resembles a verse written by Srinatha. Panakalaraya placed his native land and his native country in high esteem. He described his native country in high esteem. He described his native place i.e., Tadeṭpalli as being situated in the northern part of Kondavidu region and is blessed with twelve

¹ Sri V.Subba Rao (ed), *Satakavulacarira*, p.458.

² *Ibid*. p.459.

³ *Ibid* p.460.

hills, two rivers, a port and also with the temple of lord Nrsimha. His description Kondavidu in a full big verse reveals his affection towards his native region. He mentioned that Kondavitisima could be placed in high rank among the fifty six countries (Desas). It seems that Kondavitisima was glorious at the time he composed this verse. Under the Reddi kings, the Kondavidu region was at its zenith in its glory. After the fall of the kingdom, it came into the hands of the Rayas of Vijayanagara. Taking advantage of the unrest in the Vijayanagara empire after the battle of Rakṣasa-Tangadi and the civil war in the kingdom of Gajapatis, Ibrahim Qutubshah concentrated his attention on the capture of the rich Kondavidu region. He made use of this opportunity by capturing it in A.D.1580 and the region came permanently under the sway of Qutub Shahis. It seems that at the time of writing *Nētradarpaṇam*, it was under the Rayas of Vijayanagara. But when he wrote *Cittabōdhaśatakamu*, it seems, it was occupied by the Muslims. In this work, Panakalaraya expressed his grief over these political developments and also his hope that Lord Narasimha riding on the horseback would definitely punish the cruel and barbarious aggressors. He himself advised his soul to leave the wretched lords and worship Śrīhari.¹ It must have happened in the later part of his life. He might have written *Nētradarpaṇamu* before A.D.1580. Hence his date can be traced approximately as A.D.1530-1590.

From the genealogical information given in *Netradarpaṇamu*, we came to know that the author was the great grandson of Rangāmātya. Rangāmātya was said to be a foremost person among the Āruvēlaniyōgi Brahmins. The suffix 'amātya' to his name also denotes that he might be an officer or minister in the government. His son Subbārāyudu is also mentioned as honoured by the kings. It seems that both Rangamatya and his son were officers in the government of the time. In *Rukmiṇīpati Śatakamu*,² Pānakālarāya mentioned that his father Vēṅkaṭārya was honoured by the kings.

1 *Satakavulacarithra*, p.465; *Cittabodha Satakamu*, v.58.

2 *Ibid.* p. 467; *Rukminipati Satakamu*, V.25.

Probably, they were the medical officers or physicians appointed as *niyōgādhipatis* by the government of the time.

There is a false propagation or rumour that Pānakālarāya was honoured in the court of Vasireddi Venkatadri. But it is not correct because by that time, there took place many changes in the geographical divisions of the country. Vasireddi Venkatadri was not a ruler of Kondavidu. He was the zamindar of Cintapalli.

At the outset of his work, Panakalaraya paid his obeissance to Lord Krishna, then praised the *Trinity* (Viṣṇu, Śiva and Brahma) and their spouses, Ānjanēya, Aśvines and other Gods. Then he paid homage to the sages like Vālmīki, Śuka, Vyāsa and the poets like Bāṇa, Māgha, Mayūra, Bhavabhūti, Tikkana and Kālidāsa and to all the poets of all times and finally praises all the physicians. B. Rama Rao hesitated to recognise Panakalaraya as a Physician.¹ He expressed the objections for this thus: "It may be pointed out that in the verse describing his family, he mentions his grandfather as well as himself as scholars in all sastras, but does not claim credit for them as physicians or surgeons. Though he mentioned Asvins among Gods, he had not named Dhanwantari. He was satisfied by paying his respects to all physicians as a group without naming any particular famous sages like Bharadwaja, etc., or physicians or surgeons like Caraka, Susruta. etc." But we observe the conditions prevailed in then society, these objections to consider him as a Physician seem to be inappropriate. It was a common trend in those days among the scholars to identify themselves as poets more than any thing. Almost all the scholars from every field tried to write *Kavyas* or *Satakas*. And were anxious to introduce themselves as poets. Many scholars in Ayurveda like Indrakanti Vallabhacharya, Tulluru Śarabharāju, Lōlimbarāju etc., composed poetical works and introduced themselves proudly as great poets. Another point is that the ancestors of Pānakālarāya too were mentioned as who were honoured by the kings. In Andhradesa, many scholar-physicians were born in *Ārvēla niyogi* families. Though their main profession was to take up some job in the revenue department, especially as village

1 *Bulletin, IIHM*, Vol.IV (1), 1974, pp10-11.

Karanams, many of them like Rāyasam Pēraṇa, Indrakantī vallabhācārya, Rāmakṛṣṇabhaṭṭa etc. took up medical profession. Pānakālarāya was an eye-specialist. It is an usual practice in Andhradesa to practise any one of the branches of medicine by certain families either as a main or as a sub-profession. Like wise the family of Pānakālarāya also might have practised Ophthalmology. In his prayers, the author pays his respects to Asvins, the heavenly doctors and also the physicians of the world as a whole, though he did not mention their names there. Above all, we should keep in mind that a lay man or a common poet could not write such a great medical treatise that too a work having concentrated only on eye-diseases. This specialised study must have been written by the great Ayurvedic scholar Pānakālarāya who took up the specialised study and training in the treatment of eye-diseases.

According to Pānakāla Rāya, among all branches of learning medicine is the best and no other science is equal to that as it is intended for *parōpakāra* (service to others). He states that after looking over different treatises on Ayurveda, he decided to compose a work in Telugu on eye-diseases, in a very clear style like a mirror for eyes with the following details: *Kaṭṭu*, *Paṭṭu*, *anjanas*, medicines, *Naśyas* (nasal insufflations), dietetics, medicated oils and lastly surgical treatments.

Before starting the subject on eye-diseases and their treatment, he first explained the *Karmavipākā*. He mentioned 96 eye-diseases. It is rather a development in the study of eye-diseases. Next he gave the causative factors to the eye-diseases. He stated that he would explain the nine means of curing eye-diseases. But we find only the first four procedures. Till now, we do not find any evidences to know whether the author omitted the remaining five procedures or whether these were lost in course of time. Probably it may not be the omission of the author who started describing the nine procedures one by one and who clearly stated at the end of the work that all the sections in the book were completed and nothing was left out. If for any reason he failed to complete the work, he would not have written that it was completed, without finishing more than half of the work. Most probably the second half of the work might have been hidden since it dealt with the new developments. Only the first half of the book and

the closing verse might have been given to the other copyists. The source -manuscript for the published work might be one such copy of the original or a copy of the copied work.

ŚRĪNĀTHA PANDITA

He is known to be the author of a great medical treatise "*parahita Samhita*". There are no other sources found available which give information about Śrīnātha Paṇḍita, except this work. The colophons at the end of some Kāṇḍas of this work run thus: "*Iti Śrīnātha Paṇḍitaśya kṛtau Parahitasamhitāyām...*" There is no mention of the *gotra* or the names of his ancestors or preceptor or his place or patron. The title *Paṇḍita* means a scholar in modern days. But during the medieval days, it was extensively used as a suffix to the names of the physicians. Veturi Prabhakara Sastry, V. Sankara Sastri, Mallampalli Somasekhara Sarma and N. Venkataramanaiah all were of the opinion that the eminent physicians who were scholars or scholars who were also eminent physicians and Śaivacaryas were honoured with this title, in medieval Deccan.¹ There are numerous inscriptions which refer to the names of physicians having *Paṇḍita* as suffix to their names. It is a noteworthy thing that except a very few, almost all the physicians who were referred had this term added to their names. Hence we can imagine that the physicians were known as *paṇḍitas* as some of the modern Ayurvedic physicians added *kaviraj*, *Kaviratna*, etc., as prefix to their names.

Śrīnātha's work *Parahita Samhita* is started with an invocatory verse offering salutation to Viṣṇu in the incarnation of Hayagrīva, the God with the head of a horse. In the next verse, the author prays Iswara, who is addressed as '*Vaidyanātha*' and who is wearing the moon, the controller of medicines, on his head as an ornament.

Parahita Samhita is not found in full. In Government Oriental Manuscripts Library, Madras, there is a manuscript work entitled

1 *Parahitasamhita*, Introduction, Sri Venkateswara University, (Tirupati, 1972).

Parahita Samhita which contains Aṣṭāṅgākāṇḍa complete eight *Adhikāras*, the beginning being wanting in first *adhikāra*. The *Adhikāras* are named as :1...2. *Kaumāra tantram*, 3. *Bhūtavaidyādhikāra*, 4. *Dēha Cikitsādhikāra*, 5. *Sahyādhikāra*, 6. *Sarvasahyādhikāra*, 7. *Rasāyanādhikāra* and 8. *Vājīkaraṇādhikāra*. The entire first section is lost, except the last page dealing with the effects caused by sleeplessness and regimen to be followed to secure sound sleep. This section is expected to be *Kayacikitsa* or internal medicine on the basis of the traditional division of Ayurvedic medicine. The entire manuscript in the Government Oriental Manuscripts Library covers only one aspect i.e., the curative medicine, Aṣṭāṅgākāṇḍa or the part dealing with eight divisions of treatment.¹

Parahita means doing good to others. The science of medicine is considered to be productive of prosperity of the world and which promotes the welfare of the people. With this view, the author named his work as *Parahita Samhita*.

The author, it seems, followed the earlier *Samhita* works and some other works of this region earlier to him. There can be found some verses here and there, modelled on passages from *Susruta*, *Vagbhata*, *Aṣṭāṅgahrdayam*, *Rasaratna Samuccayamu*, *Vaidyacintāmaṇi*, and *Basavarājīyamu*.² Veturi Sankara Sastri proves that the author belongs to Andhra region on the basis of three facts i.e., the usage of Telgu words such as *Sīsamu*, *nāgali*, etc., the prescription of *Curukulu* (agnikarma) was more prevalent in this region for some particular diseases and the consultation of *Vaidyacintāmaṇi* and *Basavarājīyamu* by the author.³

1 From this manuscript, Sri Venkateswara University Published only two parts, i.e., *Salakya* and *Salya* under title, *Parahita Samhita*. There is another work published by M/s Vavilla Ramaswamy Sastrulu & Sons, Madras, in 1952 entitled *Srinatha Pandita Pranita Parahita Samhita, Sadharana Kanda*. The contents of the publication are: 1. *Prathamadhikara*, 2. *Swasthavrttadhikara*, 3. *Dravyaniscayadhikara*, 4. *Anuravrttadhikara*, and 5. *Prayascittadhikara*.

2 Sridhanvanthari, October, 1951, pp. 762 to 764.

3 *Ibid.*

The Manuscript in the Government Oriental Manuscripts Library is in Sanskrit written in *Nandināgari* script which was in common use during the time of the Western Chalukyas, the Reddi kings of Kon-davidu and the Rayas of Vijayanagara.¹ This script had become outdated after sixteenth century. But we do not know whether the manuscript is an original or a copy. There is neither the name of the scribe nor the date of scribing.

The influence of *Basavarajiyamu* and *Vaidyacintāmaṇi* on the present work proves the fact that it was written after the above two works. These two works are believed to have been written in fourteenth and fifteenth centuries respectively. Hence we can surmise that *Parahitasamhita* and its author Srinathapandita belonged to sixteenth century.

Some scholars like D. V. Subbareddy² and V. Sankarasastri³ believed that Srinatha Pandita belonged to *Parahita* family of physicians who were referred in the inscriptions of fourteenth and fifteenth centuries. D. V. Subba Reddi writes, "The only significant detail recorded is that the book is called *Parahita Samhita*. It is quite likely that Srinatha Pandita was a descendant of one of the *Parahita* families but belonged to an epoch, a few generations posterior to the famous scholars and physicians mentioned in the inscriptions discovered."⁴ He even guessed that the author might be a pupil of *Parahita* Physician. But we should keep it in mind that the term *Parahita* is not reserved to any one family and any good physician well versed in all branches of the medical sciences and who dedicated his life to the public service in the medical ground was regarded as a *Parahita* in medieval Andhradesa.

1 *Bulletin, IHM*, Vol. II, P. 202.

2 *Bulletin, IHM*, Vol. II, p. 206.

3 *Sridhanvantari*, October, 1951, p. 764.

4 *Bulletin, IHM*, Vol. II, p. 206.

IYIJA ŚRĪNIVĀSĀRYA

Śrīnivāsārya of *Kauśika* *gōtra* who belonged to *Ārvēla* family was an eminent scholar in Ayurveda. He was the son of Raghunāthārya and grand son of Iyija Nāgārya. The suffixing word 'Ārya' to the names of his and his predecessors indicates the fact that he belonged to the family of eminent scholars. He was the student of Paddanārya. A colophon in his work *Cikitsātilaka* gives the above information.¹ *Cikitsātilaka* is a work consisting of five divisions i.e., *Sūtra*, *Nidāna*, *Śārīra*, *Cikitsa* and *Uttarasthāna* and is compiled in thirty chapters. It is an exhaustive work on medicine and closely follows Vagbhata's *Aṣṭāṅgahṛdaya*. In this work, Śrīnivāsa arranged the *Sūtrasthāna* in forty chapters, *Śārīra Sthāna* in ten, *Nidānasthāna* in sixteen, *Cikitsāsthāna* in twenty four and *Uttarasthāna* in forty sub chapters. He gave detailed interpretation to the things which were already mentioned by the ancient scholars and added many new things, which he had experienced in his profession. Especially from *Aṣṭāṅgahṛdaya* he took some verses and incorporated in his work without any change. But some things which are entirely absent or merely mentioned without details in earlier works could be found in *Cikitsātilaka* arranged in a systematic manner and explained in a simple and clear way. But this work is not available in complete. *Sūtrasthāna*, the first part of the book is available in the Government Oriental Manuscripts Library, Madras, and is published in 1953.

Compared to *Aṣṭāṅgahṛdaya* of Vagbhata, the *Sūtrasthāna* in *Cikitsātilaka* is simple for the study and gives detailed and consecutive account. In the respect of the composition of the work, Śrīnivāsa can be placed next to the ancient triad. He was a scholar not only in Sanskrit but also in Telugu and Kannada.² The colophon in *Cikitsātilaka* reveals the fact that he had the title *Paṇḍitarāja*. The begin-

1 *Cikitsātilaka*, GOML, Madras, 1953, vv.3 & 4, p.1.

2 He used many Telugu and Kannada words in his work, especially while explaining the *dinacarya*, *rtucarya* and the materia medica.

ning verse and the ending word *Srikr̥snarpanamastu* indicates that he was a Vaisnavite and the devotee of Dattātrēya.

If an author does not mention his date, one should search for the clues from the textual information. The author mentions in *Cikitsatilaka* that Visnu in the combined form of Brahma, Visnu and Maheswara who were responsible for the *sṛsti*, *sthiti* and *laya* created Ayurveda coming in the form of Dhanwantari. Dhanwantari in the form of Dattātrēya revealed the science to Agnivesa and others. Such a great science was learned by Śrīnivāsa and was written as *Cikitsatilaka*. These things and the usage of Telugu and Kannada words in his Sanskrit work indicates that he belonged to a period when there was staunch Vaiṣṇava influence and when the Telugu and Kannada areas were ruled as one country. It was under the Rayas of Vijayanagara that the Andhra, Kannada and Tamil countries were ruled as one kingdom in the medieval days. And it was after the Sangama period that Vaisnavism became very much wide spread in the Telugu country. Śrīnivāsa while mentioning the characteristics of Ayurveda incorporated a verse taking from *Bhāvaprakāśa* without any change.¹ Bhāva Miśra was alive in A.D.1535 teaching Ayurveda in Kasi University. He might have written his work before that time. Then it must be that Śrīnivāsārya belonged to a period not earlier than A.D. 1550. The author of *yōgaratnākara* introduced apple in his work which was brought from the western countries probably in the later part of sixteenth century. Srinivasa who explained the ingredients of many fruits did not mention apple. All these facts help us to conclude that Śrīnivāsārya belonged to a period between the last quarter of Sixteenth century and the first quarter of seventeenth century A.D.

Śrīnivāsa's native place Iyija is situated in the (present Mahbubnagar district) border area of Telugu and Kannada states. It seems that he served the people of both the areas and became famous in these places. He wrote his work to make it easy to the physicians of both areas using Telgu and Kannada words. He used more Telugu words

1 *Ayurhitahitamvyadhimidanam samanamiadha - Vidyate yatra dhimatbhih sa Ayurveda ucyate* - *Bhavaprakasa*, I, v.103; *Cikitsatilaka*, Sutrasthana, v.22.

than the Kannada words in his work. At the end of his work, Śrīnivāsa wrote that he composed the work keeping in mind many kinds of medical works and in accordance with all kinds of philosophical thoughts. It means that Śrīnivāsa was well acquainted with all the other systems of medicine and was proficient in different methods of Ayurvedic medicine.

Śrīnivāsa, by giving the particulars about the other chapters, helped us to know the contents of his great work. He explained the fevers following the ancient works like *Mādhavanidāna*. In *Sūtrasthāna*, *Pancakarma* was explained in detail. In the *Sūtrasthāna* of *Aṣṭāṅgahṛdaya*, the methods of doing *pancakarma* which help in the excretion of waste are given completely. But "no complete account is given of how the necessary medicines for them are obtained or how the dangers that may result are overcome without knowing these, no one should undertake to do *pancakarma*. But these are found thrown in some of the later parts of the same book. Similar is the case with *Carakasamhita*. If all the facts relating to *Pancakarma* were grouped together and arranged well, it would have facilitated quick, easy and complete study of the subject. This lack is remedied by Srinivasarya in the *Sutrasthana* of his book *Cikitsātilaka*. All the details relating to *Pancakarma* are completely dealt with."¹ The characteristics of the various ingredients of the medicine, their tastes, effects, etc., which are briefly mentioned in *Aṣṭāṅgahṛdaya* are very well arranged with useful commentaries in forty chapters and with appropriate titles. In the *Uttarasthāna* of *Cikitsātilaka*, the regimen to be followed by all, from kids to elders, paediatrics, the treatment of nasal and ear diseases and the diseases of throat etc., are explained. The treatments for the bites of the poisonous creatures such as serpents, the *rasāyana* medicines, etc. were also incorporated.

With regard to the improvements made on the old works, V.S. Venkata Subrahmanya Sastri writes, "There are found in this book, sure and effective medicines for treating corpulence, undue slimness,

1 V.S.Venkata Subrahmanya Sastri (ed), *Cikitsātilaka*, GOML, (Madras, 1953), No.CVIII, p.xxi.

sleeplessness, excessive sleep, etc. and the uses of substances like musk, saffron, camphor, etc., and flowers like jasmine, rose, lotus etc., in medicine. The healing qualities of breast-milk, the preparation of plantain juice, the significance of fire, sunlight, moonlight, darkness, lamp, looking at the mirror, etc. are well set forth in this book. The cure of cholera, treatment of persons rescued from drowning and various other useful methods and medicines are given in this book."¹

The way that he concluded the work reveals his noble mind. He begs the elders of his time to accept his humble contribution. In the experience in medical profession and in the exposition of medical work, he can be mentioned as an equal to the ancient triad. It is a pride to the Andhras that such a great physician who wrote such a great work which confirms to the basic principles laid down by the Indian sages, which is the outcome of wisdom and perception of eternal values in medicine and which can be understood easily even by the men of slow understanding. But it is an unfortunate thing that such an useful work is not available in full. It is the responsibility of future scholars in Ayurveda to search for the remaining part and bring it into light to enrich the cultural and scientific contribution of Andhradesa to Indian culture and heritage.

TRIMALLABHAṬṬA

Among the medieval scholars who dedicated their lives for the development of indigenous medicine, Āndhra Brāhmaṇa Trimallabhaṭṭa was the one. He wrote nearly eight great works dealing with many aspects of Ayurveda. They are : *Dhanwantarīya Nighantū*,² *R̥tucaryā*,³ *Śaḍṛtuvarṇanam*,⁴ *Śataslōki*,⁵ *Vṛttamāṇikyamāla*,⁶

1 V S Venkata Subrahmanya Sastri, (ed), *Cikisanlaka*, p. xxii.

2 *A Checklist of Sanskrit Medical Manuscripts in India*, p. 19, No. 231.

3 *Ibid.*, p. 52, No. 696.

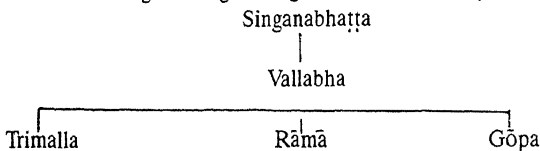
4 *Ibid.*, p. 57, No. 761.

5 *Ibid.*, p. 59, No. 788.

6 *Ibid.*, p. 76, No. 1022

Dravyaguṇa Śātraslōki,¹ *Yōgatarangini* in Telugu and *Br̥hadyōga Taran-giṇi*² in Sanskrit. The palm-leaf manuscript copies of his works are found available throughout India. Among these works, *Dhanwan-tarīya Nighaṇṭu*, *Śātraslōki* and *Yōgatarangini* are published.

Trimallabhata gave the genealogical line of his family thus:



He mentioned that he was born in Tripurantakam situated in Trilingadesa. He belonged to *Āpasthām̐ba Sūtra* and born in *Ar-vēlaniyōgi* family.³

All his works are wide spread all over the country and were referred by many scholars of Seventeenth century. Especially, *Dhanwantarīya Nighaṇṭu*, a medical dictionary and *Yōgatarangini* and *Br̥hadyōgatarangini* were studied by the medieval medical students. *Yōgatarangini* consists of the therapeutics explained in brief in 81 *tarangas*. *Br̥hadyōgatarangini* consists of 148 *tarangas*. He explained in this work many things such as *Śārīra* (anatomy) *dravya guṇa*, *Rasāśāstra*, *Swasthavṛtta*, *Ariṣṭāḷaxaṇa* and *Rōgiparīkṣa* including the traditional eight branches of Ayurveda. P.V.Sharma wrote that Trimalla gave references from *Śārjñadhara Saṁhita*, *Madanapālanighaṇṭu*, *Lōlambarājīyam* and *Bhāvaprakāśa*. Trimalla's verses appear in *Yōgaratnākara*. P.V.Sharma opines that Lolambaraja belonged to the first quarter of Seventeenth century and *Yogaratnakara* to the second half of seventeenth century. On the basis of it, he came to the conclusion that Trimallabhāṭṭa might have written his works in the middle of seventeenth century.⁴ But it is not correct since the date of Lōlambarāja is wrongly estimated. Lōlambarāja belonged to four-

1 A check list of Sanskrit Medical Manuscripts in India, p. 21, No. 256.

2 Ibid, p. 81, No. 1080.

3 P.V.Sharma *Ayurved ka Vajjananik Itihas*, pp.145 - 146.

4 Ibid. p.146.

teenth century A.D. On the basis of the materia medica given by Trimallabhaṭṭa, it seems that he belonged to sixteenth or seventeenth century. He gave references from Bhāvamīśra's work which belonged to the middle of sixteenth century. Trimalla referred to *phirangirōga* which started spreading in India in the first half of sixteenth century. The author of *Yōgatarangiṇi* who is said to have belonged to the later half of seventeenth century, referred some verses from *yōgatarangiṇi* of Trimallabhaṭṭa. P.V. Sharma puts forth the probable date of *Yōgaratnākara* after a careful examination of the textual evidences, as between A.D.1610- 1640.¹ Then the works of Trimallabhaṭṭa must have been written before this time and after *Bhavaprakasa* i.e., A.D.1575-1600.

Trimalla's brother Rāmāpaṇḍita Vaidyulungāru received a grant of land in Nadendla (Guntur dt) from Rājādhirāja Rāja Paramēśwara Śrīvīrapratāpa Srivirangarayadeva Maharaya in the cyclic year pramādi (A.D.1580).² He was just younger to Trimalla. Rāmā was mentioned as a *Kāryakarta* to Gobūrī Dēvamahārāja. This record acts as a corroborative evidence to prove that Trimalla belonged to the second half of the sixteenth century (A.D. 1550-1600).

DĒVULAPALLI VĒNKAṬA NARASAIHAH

He was the scholar-physician who wrote *Andhra Cintamani*. He states that this is a Telugu version of *Vaidya Cintamani* of Vallabhacarya, of Śrī Vatsa gōtra. He introduced himself as the grand son of Cina Narasana Mantri, the son of Śrīnivāsa Mantri. He first paid obeisance to lord Sri Venkateswara of Tirupati and to his *guru* Anantadēśika son of Vēnkaṭa Tātadēśika. Anantadēśika is described as a moon in the ocean of Srisaila family and is said to be great man among scholars, a scholar in philosophy, and expert in discussing the Srivaisnava philosophy and an upholder of Śrīvaiṣṇava religion.

1 P.V.Sharma, *Ayurved ka Vaijnanik Itihas*, p.122.

2 *SII*, V - 130.

Vēnkaṭa Tātādēśika, an eminent Śrīvaiṣṇava scholar was greatly honoured by him and he was made the head of all the Śrīvaiṣṇavas in the empire. In A.D.1523 the king gave orders to the effect that he was to be shown the first honours in every public assembly and gave him a charter to that effect. Vēnkaṭa Tātārya was also given the power to punish the delinquents in regard to religious and social matters.¹ During the period of Sadasiva Raya, the Royal preceptor of Krishnadeva Raya was displaced by Tātācārya. According to *Prapannāmṛtam*, a work written by Anantarya, it was during this period that Doḍḍayācārya defeated all the Saiva Scholars of Cītrakuta (Cidambaram) including Appayadiksita in a religious controversy and succeeded in establishing the worship of Govindaraja at the place with the help of Tātacarya and Ramaraja.² Anatarya wrote his work in the early part of seventeenth century. Tātacarya married many wives.³ Anantadesika, the guru of Venkata Narasa Kavi might be one of the sons of Tātadesika. Like his father, Anantadesika too, it seems, dedicated his life for the propagation of Srivaisnavism. Another point to be noted here is that the guru of Venkata Narasa i.e., Anantadesika is said to have belonged to the family lineage of Srisailla. In the spread of Śrīvaiṣṇavism in Vijayanagara empire, the members of Śrīśailapūrṇa family played an important role.⁴

According to *Prapannāmṛtam*, the genealogical line of Śrīśailapūrṇa family is as follows:⁵

1. Nṛsimhācārya
(Resident of Etur and the guru of Virupaksa II)
2. Tātācārya
3. Śrīśailapūrṇa
4. Śrīnivāśācārya

1 M.A.R.1918, para 110.

2 T.V.Mahalingam, *Administration and Social Life Under Vijayanagara*, Part II, p. 221.

3 *Ibid.* p. 273.

4 *Ibid.* pp. 223-24.

5 G.Sriramamurthy, *Biographies of the Telugu Poets*, V.R. Sastrulu & Sons, (Madras, 1953), p. 316.

5. Tātācārya
6. Vēṅkaṭācārya
7. Sudarsāna (Sundara) cārya
8. Śrīnivāsācārya
9. Tātācārya (guru of Rāmarāya)
10. Laxmīkumāra Tātācārya
11. Vēṅkaṭācārya

Tātācārya, the *guru* of Rāmarāya, started his life as a *guru* in the reign of Krishnadeva Raya. It was he who was honoured by Krishnadeva Raya in A.D. 1523. He was also mentioned as Venkata Tatadesika who continued his career as a *guru* till A.D.1577.¹ His son, the *guru* of Venkata Narasa too might have lived till the end of sixteenth century A.D. Hence it may not be inappropriate to surmise that Venkata Narasa Kavi wrote his work in the last quarter of the sixteenth century. The suffix *mantri* to his grandfather and father indicates that they might be the generals or officers under Vijayanagara kings.

The work of Vēṅkaṭa Narasa Kavi i.e. *Āndhra Cintāmaṇi* is mainly on the lines of *Vaidya Cintāmaṇi* of Indrakantḥi Vallabhācārya. But it is not available in full.

ELAKŪCI BĀLASARASWATI

Some scholars in medieval Andhradesa studied many sciences and learnt many languages. Some of them translated the scientific works like Ayurvedic. Among them, mention may be made of Elakūci Bālasaraswati and his student Cundī Liṅgayārya.

The Elakuci family belonged to Pakanati viṣaya. According to the information coming from his works, there is one Tirumalayya in the Elakūci family, who was honoured once by Aliya Ramaraya in between A.D.1543 and 1564. He had three younger brothers. Among

¹ T.V.Mahalingam, *Administration and Social Life Under Vijayanagara*, Part II, p. 272.

them, Ramanna was the eldest. His grandson was Krishnayya. He had two sons namely Venkata Krishnaiah and Aditya. Venkata Krishnaiah gained a lot of knowledge even at a tender age and was hence called as Balasaraswati. Later this name became permanent and the original name was left.¹

Balasaraswati was honoured by Jupalli Venkatadri, who ruled Paritala as a feudal lord in the first quarter of the seventeenth century. After some time, he went to Jataprolu which was ruled by the Recerla family.² There he was honoured by Madhavaraya of this family.

Balasaraswati wrote in his commentary to *Āndhraśabda Cintāmaṇi* that he composed many commentary works, *Kaumudi*, a drama, *Bhāṣāvivaraṇam*, a grammar work, *Bāhaṭam*, a medical work, *Candrāpariṇayam*, *Vāmanapurāṇam*, *Bhramaragītī* and *Rāghava Yādava Pāṇḍaviyamu*. In *Candrāpariṇayamu* also he gave the list of his works thus: *Kartikēyabhyudayam*, a commentary to *Āndhraśabda Cintāmaṇi*, *Vāmanapurāṇam*, *Ṣaḍbhāṣāvivaraṇam*, and *Ranga Kaumudi*.³ In the latter part of his life he translated the *Subhāṣitas* written by Bhartṛhari in Sanskrit into Telugu.

In the above mentioned two lists, we find the work *Bahatamu* said to be written by him. In *Candrāpariṇayamu*, he clearly mentioned that he had translated *Bāhaṭam* into Telugu. It seems that Balasaraswati, who belonged to the later period had translated the Sanskrit *Bahatagranthamu* which is attributed to Kārtikēya, son of Gauri. But it is an unfortunate thing that this work of Elakuci Balasaraswati is not available. One or two verses which are said to have been taken from *Bāhaṭamu* can be found in *Basavarājīyamu*.⁴

Balasaraswati's name is followed by the word *Mahāmahōpādyaia*. This word denotes that he was one of the greatest teachers in those days. He might have maintained a learning centre at his place. Among his students, Cundi Lingayārya was one, who translated Vagbhata's

1 Arudra, *Samagrandhra Sahityamu*, pp.29-30.

2 *Ibid.* pp. 31-32.

3 Arudra, *Samagrandhra Sahityamu*, pp.31 - 32.

4 *Basavarājīyamu*, pp. 578.

Aṣṭāṅgahr̥daya into Telugu. The fact that Balasaraswati and his student taking up the task of translating great medical works indicates that they were good physicians too.

PULAPĀKA TELUGURĀYA

He is the author of *Nidānayōga Ratnāvaḷi* in Sanskrit. Two palm-leaf manuscripts of this work are available in the Government Oriental Manuscripts Library, Madras.¹ They are written in Telugu script and with Telugu meaning.

The name of the author is written as Telkurāya. The scribe of this copy might have committed a mistake in writing the name of the author as Telkuraya instead of writing it as Teluguraya, a popular name in Andhradesa during this period. The surname of the author *Pulapāka* helps us in identifying his birth place. Pulapaka is situated in the present krishna district and very near to Srikakulam, the original seat of Teluguraya or Andhramahaviṣṇu. It must be on the name of the deity there, his parents had given the sacred name to their beloved son. The colophon of *Nidānayōgaratnāvaḷi* informs us that he is the son of Singayadesika. Other than this, we are not getting any information about this scholar. That's why it is very difficult to identify his date. But on the basis of textual evidence, scholars stated that he lived at about A.D.1600.²

Nidānayōgaratnāvaḷi is a work on pathology as the title itself indicates. The author at the outset of his work says that he first explains the origin, the diagnosis and the treatment of fever. The work is not available in full.

1 GOML, Madras, No.D.1316 4, 13165.

2 K.V.Sharma, *Ayurveda Itihasamu: Parichayamu*, 1987, p.425.

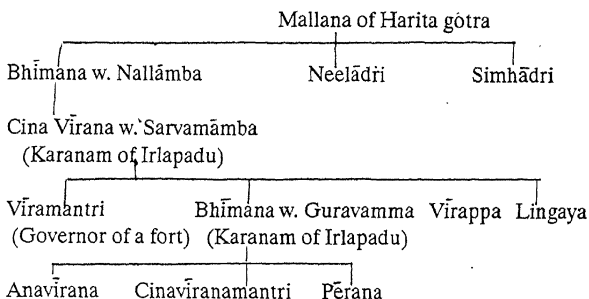
IRLAPĀṬI PĒRANA

Pērana, the author of *Vaidyasāramu* in Telugu seems to be a physician, though he did not introduce himself as a physician. If one was not well acquainted with medicine or medical profession, it could not be possible for him to write a medical work in Telugu after studying the science in Sanskrit. He wrote *Vaidyasāramu* with view to make easy the traditional methods and procedures to the common physicians. About the purpose of composing this work, Perana narrated an incident in the introductory verses of his work.¹ He mentioned that once he went to visit Sriramacandra of Bhadracalam on his pilgrimage, There God Srirama appeared in his dream and asked him to translate the science of medicine from Sanskrit to Telugu as Sanskrit could not be read and understood by the people who were suffering from many diseases due to the influence of *Kaliyuga*. That's why, he wrote this work after studying many medical works and dedicated it to Sriramacandra. It is said "to have been written on the lines of the *Sidha Kriyas* written by Navanātha Siddhas.

Pērana gave some details about his family.² He belonged to *Harita gōtra* and resident of Mahimbarikepuram also called Irlapadu. It is situated in the present Narsaraopet Taluk of the Guntur District. Pērana belonged to *Rāyasam* family. From the information given in the introductory verses of *Vaidyasāramu*, we can draw the genealogical line of Perana's family thus :

1 *A Des. Cat. Tel. Mss.*, GOML, Madras, 1948, p. 2737.

2 *Ibid.* pp. 2737 - 38.



The great grandfather of Peraya namely Mallana was mentioned as who won the admiration of Gajapati king and later become a right hand to Krishnadevaraya.¹ Kondamarusayya of *Rayasam* family played a prominent role in the reign of Krishnadevaraya. He was the next person to Timmarusu during the reigns of Viranarasimharaya and Krishnaraya. But we do not find Rayasam Mallana who was the right hand of Krishnadevaraya. Mallana was mentioned as lived in Kundinipura (Kondavidu) and improved the condition of the poor people. Kondavidu was a stronghold of Gajapatis when Krishnaraya started his Kalinga campaign. Prataparudra Gajapati did not like to appoint others as Governor of the Kondavidu fort. He sent his son Virabhadra as its Governor and appointed many powerful generals to assist him in protecting the fort. It took two months for the Vijayanagara army to occupy the fort. After occupying the fort, Krishnaraya appointed Saluva Timmarusu as its Governor. But Timmarusu, as he was busy with the Kalinga campaign of Krishnaraya, entrusted the duty of governing the Kondavitisima to his nephew Nadendla Gopamantri as his representative. Hence it is clear that Mallana was not a governor of Kondavidu either before the campaign of Krishnaraya or after the incident. We donot find the name of Mallana in the history of generals who were caught as captives from the fort along with Virabhadra. Mallana's sons and grandsons were

1 *A Des. Cat. Tel. Mss.*, GOML, Madras, 1948, XI, p. 2737.

mentioned as who looked after the farmers with affection and compassion as *Karanams* of Villages. Hence it seems that Mallana might have been a revenue officer and a great warrior too as his chivalry was mentioned as much appreciated.

Here the fact which Perana mentioned about his great grand father's migration from the Gajapati ruler to Krishnaraya helps us in tracing his approximate date. Krishnadevaraya defeated the Gajapati king in A.D.1514. Then some of the ministers and generals who served the Gajapati in Kondavitisima joined in the service of Krishnadevaraya . Mallana might be the one among them. If it was so Mallana might have joined the service of Krishnadevaraya about A.D. 1515. We can reasonably imagine the age of Mallana at this time as 40, as he was mentioned to have had served the Gajapati king also for some time and gained good fame. Then the approximate year of birth might be A.D. 1475. If we follow the general procedure of the historians by keeping 25 years gap for each generation, we find the probable year of the birth of Perana as about A.D. 1575. In one of his verses, we find an indication to the fact that he was an young man when he started his work *Vaidyasāramu*.¹ Hence the date of his writing the work might be about A.D.1600.

Pērana seems to have been interested in the Siddhasystem of medicine. His work gives the traditional prescriptions and procedures popular in Andhra region.

CUNḌI LINGAYĀRYA

He was a distinguished desciple of Elakūci Bālasaraswati Mahāmahōpādhyāya who belonged to the first quarter of the seventeenth century. Lingayārya was the son of Vissanapanḍita and the follower of Bhattīyamannārādhyā Saiva cult. Cunḍi village is located in Nellore district. Lingayārya dedicated his work to Sahasralingēśwara, seated in Ippaṅunta village. This village is also located in

1 A.Des.Cat.Tel.Mss.GOML,XI,p.2737.

Nellore district. Hence we can say that he belonged to Nellore district. As he mentioned that he was the disciple of Balasaraswati, it is clear that he went to Krishnadistrict to receive education from the renowned scholar. All the above information is available from his work, *Aṣṭāṅgahṛadaya* which is translated from Sanskrit *Aṣṭāṅgahṛadaya* of Vagbhata into Telugu verse form. The work is not found in full. In the opinion of Veturi Sankara Sastri, Lingayarya must be a scholar-physician since a mere scholar in letters, without practical medical knowledge, cannot translate such a great medical work.¹

SŌMAYA

Sōmaya is known from his work *Bhiṣagvarāṇjanam*.¹ He wrote this in Telugu and dedicated it to Lord Siva. The book is in the form of instruction by Lord Dhanvantari to the sage Agastya. This kind of narration of the Ayurvedic science, as revealed by Dhanvantari to Agasthya is a strange practice. This indicates that the author had a great regard for Siddha school of medicine.

After paying homage to his *guru*, Sōmaya gave the genealogy of his family. There was Brahma Viśwakarma with five faces i.e., Sadyōjāta, Vāmadēva, Aghōra, Tatpuruṣa and Isanya. Respectively from these five heads were born five Brahmas i.e., Manubrahama, Mayaviśwakarma, Tvastra Viśwakarma, Śilpi Viśwakarma, Japati and Viśwajña Vidhata. Among the descendants of Tvastra Viśwakarma there was one Pōlaya, a devotee of Lord Siva, in the gōtra of Abhavanasa. Rama was his wife and to them was born Chinnaya. To Chinnaya and Kannamāmba was born Sōmaya. Sōmaya did not give any other information, about his family except this. He mentioned that his *guru* was Ganugapalle Papaya.² Papaya might be an agraharika in the village Ganugapalle imparting education to the students. Ganugapalle of Ganugapadu is in the present Tiruvur taluk of Krish-

1 Sri V. Sankara Sastri, "Bahatamu", *Sridhanvantari*, Jan, 1960, p.3.

2 *Bulletin, IIHM*, Vol. IV (3&4), p.136.

na district. Sōmaya might have gone to his *guru* from the nearby village and studied under him.

Sōmaya confessed that he was writing this medical work in Telugu after collecting the essence of the medical works, *Divya cintamani*, *Rasapradipika* and *Bahatam* with the hope that it be appreciated by the other physicians till eternity. So far, only one copy of this medical work is available. On the first leaf of the manuscript, the date of starting of the work is given in the cyclic year with *tithi* etc. After the end of the first *asvasa* also the date is given as *Svabhānu*, *Phālguna*, the eleventh day of the bright fortnight. It means it took approximately 22 days to complete the first 24 \bar{a} s \bar{v} asa having 15 leaves both sides. The first date tallied with two i.e., 1-2-1404 and 19-1-1644. Basing on all this information and on the condition of the manuscript, B. Ramā Rao decided the first date of the manuscript as 19-1-1644. He further says that "the date of composition may also be taken as the same or slightly earlier. Further, the beginning and arrangement of contents follow the prabandha tradition. The author also calls it as a *Prabandha*.— Thus the author Somaya may be placed in the first half of the seventeenth century.¹

Bhīṣagvarāṇjanam is divided into three *asvasas*. The author deals with *aṣṭasthānaparīkṣa*, *Jwara* (fever) and *ajīrṇa* (indigestion) with their causes and symptoms in the first *āśvāsa*. The second *asvasa* deals with the method of the purification and actions of 34 herbs and minerals. This *asvasa* deals also with the methods of preparing eleven *Bhasmas* and *sindhūtras*. In the third *asvasa*, the author gave the information about the processing and therapeutic uses of 26 traditional compound preparations and 41 decocations. B.Rama Rao and V. Sankara Sastri who have studied the work in comparison with the other medical works i.e., *Vaidyacintāmaṇi*, *Basavarājīyamu* and *Śarabharājīyamu* came to the following conclusions : "Most of the details regarding *Aṣṭasthāna Parīkṣa*, fevers, varieties of *sannipātās* etc., resemble these mentioned in these books. There appears to be a discrepancy in the periods of attack of *tandrika* and *Cittavibhrama*

Sannipatas. The methods of Sindhura preparation of copper and purification of mica are different from other texts. Some compound preparations mentioned in this works do not appear in other medical texts. The composition of 41 decoctions seem to be based on the author's personal experience."¹

Thus it is clear that Sōmaya was an enthusiastic physician who showed great interest in his profession especially with regard to the developmental methods. He carefully observed the new diseases and introduced some strange compound preparations and decoctions. They all seem to be based on his own experience in the profession. Hence Sōmaya was undoubtedly a great researcher and scientist in the field of medicine in the later medieval period.

TUḸḸŪRU ŚARABHARĀJU

Śarabharāju was a great poet, a scholar, an astrologer, an expert in performing charms and magic, a mathematician and a great physician. He was a Saivite. But he had tolerance towards the other paths in the Hindu religion. He mentioned in the colophon of his work *Śarabharājjīyamu*, that he wrote the work with the grace of Lord Venugopala and by the command and grace of Lord Anjaneya. He dedicated his work to Lord Anjaneya of Komerapudi village. It is situated in the present Sattenapalli taluk of the Guntur district.

The scion of the family of Sarabharāju is mentioned as Sivadevayogi, the minister of Prataparudradeva of Kakatiya dynasty. Their family name came to be known as Tulluru family as they got the Tulluru village (Guntur district) as an *agrahara* from Prataparudra among the nine *agrahara*s which he donated. But after sometime, some of the family members of Sarabharāju might have migrated to Sattenapalli region in search of some patronage of might have choseb it as a proper place to continue the profession as a physician.

Śarabharāju was not only a scholar-physician but also a poet. He stated that he wrote *Ṣṅgārasudhāṇavaṁ*, *Prajñāvati Rāyabāramu*, *Lavalivivāham* and also a number of *Satakas*. *Sarabharajiyamu* is the only medical work that is available on his name. This work too could not be completed by him, due to his premature death and later it was completed by his son Mādhavārya.¹

Śarabharājīyamu is an interesting work written in Telugu verse form. Śarabharāju started his work the eight-fold examination of the pulse, urine, eyes, etc., and deals with the preparation of different medicines like powders, medicated oils, pastes, ghees, pills, etc. and treatment of some important diseases like fever, consumption, skin diseases, venereal diseases, jaundice, etc. The prescriptions are given in accordance with the availability of the *materia medica* in this region. Some are based on *Bāsavarājīyamu* and some others like the prescription to the venereal diseases are new perhaps his own inventions.

The work is not available in complete. The style, presentation and the language used indicate that it is not too old. He followed the prescriptions of *Basavarāju* who belonged to fifteenth century. The *parinaya* type of Kavyas were written mostly in fifteenth century. The type of Kavyas said to have been written by Śarabharāju seem to be the works of later medieval period. The cult of *Anjaneya bhakti* also became wide spread during seventeenth century. Many scholars of this period dedicated their works to God Anjaneya. Hence keeping in view the above mentioned general things, it may not be inappropriate to consider him as a seventeenth century physician.

MĀDHAVA PANDITA

He was the son of an eminent scholar-physician Tuḷḷūri Śarabharāju. Mādhava did not give any information about himself. He mentioned that he was born in *Śrīvatsa gōtra* and *Āpasthamba sūtra*. He com-

1 *Bharani*, July 1938, p.504.

pleted his father's work *Sarabharajiyamu*, which his father could not have completed due to his premature death. He also wrote an independent work in Sanskrit entitled *Gadasanjivani*.¹ His works reveals that he was an expert in general medicine.

He made his obeisance to God Siva and Lord Dhanvantari. He mentioned in the introductory verses that he was going to explain the chapters on 1. the characteristics of disease, 2. cure of disease, 3. pharmaceutical methods, 4. *Rasayogas*, 5. Venesection, 6. Surgery, 7. *Rajakarma*, and 8. *Danakarma*.²

The colophon of his work *Gadasanjivani* mentions him as *Vaidyavidyatrinetra*. It must be his title which means that he is an equal to Siva (who is also known as Vaidyanatha) in the knowledge of the science of medicine. His title reveals the fact that he was one of the most learned scholars of his time. Such scholars generally used to maintain laboratories and teaching centres to develop and propagate the science. Madhava too might have rendered the services of this kind. His services to the development of the science of medicine are undauntedly great.

MUḌUMBI VĒNKAṬĀCĀRYA

Vēnkaṭācārya was a Śrīvaiṣṇava and belonged to Śrīvatsa gōtra. He was the son of Muḍumbi Vēdantācārya. Vedadri Laxmi Narasimha Swami was their family deity. Venkatacarya was a scholar-physician and translated Sanskrit *Rasapradīpika* into Telugu. It was widely read in the Andhra region. In the Government Oriental Manuscripts Library, there are four copies of it.³ In the introductory verses of this

1 *A Des. Cat. of Skt. Mss.*, GOML, Nos.D.13116 & 13117.

2 The editor of the Descriptive Catalogue of Sanskrit Manuscripts in Government Oriental Manuscripts Library, Madras explained that the book contains the following topics: 1. *Sarvaroga Nidana*, 2. *Nadi Nidana*, 3. *Doshatraya Prakarana* 4. *Asiti vata nidana*, 5. *Paityaroga nidana*, 6. *Slesmaroga nidana*, 7. *Rogajvara nidana*, 8. *Kshaya rogs nidana*, 9. *Grahani nidana*, 10. *Maha nidana*, 11. *Visucyajirna nidana*. This work is not available in full.

3 *A Des. Cat. Tel. Mss.*, Vol. XI, Nos.D.2453 - 55.

work,¹ Venkatakarya gave some information regarding his personal life. He mentioned that his *guru* was one Bhattaru Narasimhācāryulu, whom he described as Mahāviṣṇu and an incarnation of Dhanwantari. Venkatakarya also mentioned that it was because of his *guru*'s grace that he gained knowledge in Sanskrit and Telugu. In the science of medicine, he first studied the works of the ancient triad i.e., Caraka, Susruta, Vagbhata. He was well versed in Susruta's *Śarīra*, Vagbhata's *Sūtrasthāna* and a in Agasthya's *Rasatantra*. He stated that he gained practical knowledge also in these. It was an usual custom in Andhradesa among the teachers in Ayurveda to instruct their pupils in Mādhava's *Nidāna* (diagnosis) Susruta's *Śarīrasthāna* (Anatomy), Vagbhata's *sutrasthana* (principles of medicines) and Caraka's *Cikitsa* (therapeutics). The medieval scholars believed that if one was thorough with these, he need not go for any other source and one must study these basically. Venkatakarya stated that he studied all these and *Rasatantra*, the South Indian school of medicine. He also studied the famous medical text of medieval Andhradesa i.e., *Bāhaṭagrantha* of Bāhaṭa.

Venkatakarya lived in Vēdādri which is situated in the present Krishna district. It seems that he dedicated his life for the service of human-beings providing them medical aid. Venkatakarya had the title *Vaidyavinoda*, which means that one who takes pleasure in extending medical services to the human-beings. The area around Vedadri was rich in the availability of drug-substances. That's why he was able to do research in the preparation of various kinds of drugs. In his work Telugu *Rasapradīpikā*, he mentioned many new procedures in the *māraṇa* (calcination) and *śōdhana* (purification), of *rasas* which he discovered out of his own experience. In the first chapter of the Telugu version, *Adhaḥpātana* of mercury and two methods of *Sindhūra* are new. In the *anupānas* of *sindhūra*, eleven verses of Sanskrit work are not translated.²

1 *A Des. Cat. Tel. Mss.*, No.D.2453.

2 *Bulletin, IIHM*, Vol.v.pp.125-127.

Venkatacarya's Telugu *Rasapradīpika* is in the form of instruction by Agasthya to Atreya as revealed by Asvins to Dhanvantari. But this is not mentioned in the Sanskrit work. The Sanskrit work is in four chapters, but Venkaṭācārya's work is in three chapters, the third and fourth chapters clubbed into one.

In the second chapter, the purification of *Vimala*, *sasyaka* and *rasaka* are different from the original work and it is according to *Rasaratnasamuchchaya*. In the third chapter, Venkatacarya added the description of nine gems and the respective planets and purification of *pravāḷa* which we do not find in the work whereas the description of *nila*, *gōmēdhika* and *vaiḍhūrya* and the description of the *sarva-pāṣaṇasuddhi* of the Sanskrit work are not found in the work of Venkatacarya. His work is a great contribution in the medical ground since a famous work like *Rasapradīpika* appeared in the regional language as more useful to the physicians and the medical students of those days.

It seems that he was a temple-physician in the Laxmi Narasimha Swamy temple at Vedadri. He mentioned in the colophon that he got his knowledge out of the grace and at the feet of Lord Laxmi Narasimha of Vedadri. He also paid his obeisance to God Anjaneya. Almost all the Vaisnava physicians who belonged to the later medieval period in Andhradesa prayed or dedicated their works to Lord Anjaneya.

Venkatacarya was not only a physician but also a poet. We do not know how many books he wrote. But there is only a manuscript copy of his work *Dēvahūṇivilāsam* available now in the library of Andhra University.

DHĒNUVUKONḌA KĒŚAVA

Kēśavāmātya was another scholar-physician who wrote *Vaidya cintāmaṇi* in Telugu. He stated in his work that he was translating the Sanskrit *Vaidyacināmaṇi* of Indrakantḥi Vallabhācārya¹

Kēśavāmātya did not give much information to identify his place or date. From the introductory verses and the colophon of his work, we come to know that he was the son of Dhēnuvukonḍa Jōganāmātya and a devotee of Sriramacandra. And he mentioned that he was wellversed in the Science of Medicine and started writing this work as pleasing and admirable to all the physicians. He mentioned that his father was a 'śūra' (a brave man). His and his father's names were suffixed with the word 'amātya'. Perhaps his father might have held a government post as a minister or a medical officer. Or he might be a physician participating in the wars as a general as it was an usual custom in those days.

Kēśava was a great physician. His scholarship in the science of medicine can be seen in his work. Though he mentioned that he translated the Sanskrit work, a perusal of the work shows that the translator had not followed the original strictly. His work contains the treatment and diagnosis of diseases with special attention to the use of mineral preparations. He gave a chapter on *Karmavipāka*. In the days when there were very few books in Telugu on medicine, the work of Kēśava was highly esteemed and widely popularised in Andhradesa. Even in modern times, it is very much appreciated and is published by the Government of Madras in 1952.

Though we do not find any information regarding his date, it can be considered as an off-shoot of seventeenth century, when many translatory works in Telugu appeared.

HEJĪBU RĀMANNA

There were many doctors in the medieval days practising the profession strictly in accordance with the science. Though they were very much principled following the science sincerely, they were not too rigid. They accepted and observed the developments in the science. They were much curious in the observation of the new diseases and their remedies. Among such ideal doctors, mention may be made of

Hejību Rāmanna. In the Madras Oriental Manuscripts Library,¹ there is a palm-leaf manuscript copy of his work *Prasangarat-nākaramu*. It is not an independent work, but a collection of stanzas bearing on medicine. The work is available in complete. In the beginning of the work, Rāmanna paid his obeisance to God Siva. Next as a professional doctor, he prayed Lord Dhanwantari as *Ādidaivam*.² After his prayers, he condemned the *kuvaidyas* (quacks) and gave some suggestions to good doctors. He stated that if *sāli* (weaver), *korasāli*, *māla* (pariah), *tambali* (a caste of Saivite priest), *nambi*, *mangali* (barber), *cāki* (a washer woman) would become doctors, they would take off the lives of the people. To say in his own words, "if they stand beside Yama, we would not make out who is Yama."³ It indicates the fact that these professional people used to give treatment to some particular diseases. It is a well-known fact that some of these caste people were engaged in the healing art even till the recent past.

Rāmanna wrote his opinion that a good doctor should consult the physicians of different places and of different languages, the monks, the *rasasiddhas*, *gōpas*, the tribals. The experienced saints, the writers, *pauranikas*, the foreigners, the Sanskrit pandits and the standard works on medicine. Thus consulting all these and knowing the depth of the ocean like science of medicine should practise the medical profession with good common sense. He composed this in Telugu *sīsa* metrical form.

After giving all these, he wrote down what he had taken as good things from the other medical works or other scholars.

THE AUTHOR OF YŌGARATNĀKARA

Among the most popular medical works in Andhradesa from the medieval to the modern times, *Yōgaratnākaram* is the one. It is an

1 *A Des. Cat. Tel. Mss.*, GOML, Vol. XI, p. 2719.

2 *Ibid.*

3 *A Des. Cat. Tel. Mss.*, GOML, Vol. XI, Nos. D.2448, p. 2719.

unfortunate thing that we do not get any information about the name of the author or his place and time. With the help of textual evidence, Yeturi Srinivasacaryulu proved that the author was an Andhra who belonged to the seventeenth century A.D.¹

The author referred many works on medicine and yoga which he gave as a list in the beginning of his work. *Yōgatarangiṇi* which is said to have been referred by the author belonged to the last quarter of the sixteenth century. Hence *Yōgaratnākaraṁ* might have been written after twenty or twenty five years. In *Nirṇayasindhu*, the author referred some verses from this work. Hence P.V.Sharma came to the conclusion that *Yōgaratnākaraṁ* must have been written between A.D.1610-1640. His opinion seems to be correct.

The author of this work is a great poet. He composed this medical work as a poetical composition using many rhetorical figures. Some comparisons and descriptions here and there recollects the descriptions in the *prabandhas*. As a medical work, it is a significant one written in a systematic manner arranging the things such as the diagnosis, the treatment and the pharmacopia in one place. Hence it became very easy to the physicians to refer while undertaking treatment. That's why, the work got more popularity and became the handbook to the physicians all over India.

THE PHYSICIANS OF THE LATER PERIOD

Towards the close of the seventeenth century, there flourished the scholar-physicians like Kambhampāṭi Vēṅkaṭa Bhaṭṭa and *Suraya*. Venkatabhatta was the author of *Bhiṣaksudhāṇavamū*² in Telugu verse form. Unfortunately, the work is not available in full and no other information about the author is available. Rāmakrishnabhaṭṭa, son of Nīlakanṭhabhaṭṭa and the resident of Vemulapalli (Nalgonda

1 *Yogaratnakaram*, Introduction.

2 V.S.Sastri, "Bhisaksudharnavamū", *Bulletin, IIHM*, IV, p.79.

district) wrote *Rasēndra Kalpadrumaḥ* in Sanskrit.¹ Sūraya, the author of *Bāhaṭasārādikamu* introduces himself as the son of Gaṅgānārya who was a scholar in medicine as well as literature. Suraya also was a great physician wellversed in the Science and was praised by great scholars and preceptors.² Except this, there is no other information to decide the date of the scholar. But it seems that he belonged to a later period, since the word *Bāhaṭamu* is used as a synonym to the word 'Science of Medicine'. He might have belonged to the later part of the seventeenth century. There might be hundreds of expert medical officers and thousands of common practitioners during this period in this region, whose names or history cannot be unravelled due to lack of sources.

On the basis of the above study, we can identify the chronological order of the physicians and trace their approximate dates thus :

Name of the physician	Date in A.D.
1. Bāhaṭācārya	1275-1325
2. Bhōjarāja	1300
3. Śrīkaṇṭhapandita	1300-1360
4. Sāyanācārya	1310-1377
5. Dāmōdarabhaṭṭa	1295-1355
6. Śārjñadhara	1320-1380
7. Lōlambarāju	1310-1370
8. Koṇḍubhaṭṭa	1340
9. Nityanātha Siddha	1350
10. Appana Mantri	1350
11. Viṣṇudēva	1320-1380
12. Upādhyāya Mādhava	14th century
13. Viśwēswara Bhaṭṭa	1360

1 *A Des. Cat. Skt. Mss.*, Library of Calcutta Sanskrit College, (Calcutta, 1906), No. 63.

2 *A Des. Cat. Tel. Mss.*, GOML, XI, pp. 2723-2724.

14. Śrīgiri Paṇḍita	1376
15. Narasimha Paṇḍita	1385
16. Indrakāṇṭhi Vallabhācārya	14th century
17. Laxmaṇa Paṇḍita	1405
18. Annaya Vaidyēndra	1430
19. Aruṇagirinātha	15th century
20. Mallāri Paṇḍita	1450

The Parahitas:

21. Parahitācārya	1290
22. Rāmanātha	1315
23. Parahita of Akkalapūḍi	1340
24. Kāḷanātha	1365
25. Parahita (brother of Kāḷanātha)	1360
26. Dēvanārya (brother of Kāḷanātha)	1355
27. Parahita of Kaluvacēru grant	1380-1440
28. Dēvanārya	1375
29. Varadārya	1370
30. Periaṽḷla	1310
31. Bhāskarārya of Ponnupalli	1329
32. Viḷḷanārya	1354
33. Singanārya	1379
34. Parahitapaṇḍitulu of Konḍaviḍu	1516

Others :

35. Basavarāju	1525
36. Vīrakṛṣṇa	1525
37. Vēmana	1532-1625
38. Bhāvamiśra	1550
39. Rāvaṇa Paṇḍita	1575
40. Cilakamaṛṇi Vēṇkaṭācārya	1550
41. Pānakālarāya	1530-90
42. Śrīnātha Paṇḍita	16th century
43. Iyija Śrīnivāsārya	1550-1625
44. Trimalla Bhaṭṭa	1575-1600
45. Dēvulapalli Vēṇkaṭa Narasa Kavi	1575
46. Elakūci Bālasaraswati	1550-1625

47. Pulapāka Telugu Rāya	1600
48. Cundi Lingayārya	1640
49. Sōmaya	1644
50. Tullūri Śarabharāju	17th century
51. Mādhava Pandita	17th century
52. Mudumbi Vēṅkaṭācārya	17th century
53. Dhēnukonḍa Kēśava Kavi	17th century
54. Hejību Rāmanna	17th century

On the observation of the above information regarding the chronology of the physicians, we can clearly find out the policy of the rulers of this region towards the physicians. During fourteenth century, when the Sangama rulers of Vijayanagara and the Reddi kings of Kondavidu and Rajahmundry were ruling the country, there were scholar-physicians and many works composed in Sanskrit and Telugu. Both the Rayas and the Reddi kings made land and village grants to the physicians, patronised some scholars in their courts and especially encouraged them to compose medical works.

As a result of it, a revolutionary progress can be seen in the process of the development of the science. The eightfold examination (*aṣṭaśtānaparīkṣa*) enunciated by Bāhaṭācārya, the pulse-examination more clearly and widely, explained and popularised by Śārjñadhara, the excellent prescriptions of Lōlambārāja and Vallabhācārya, the *rasa* prescriptions popularised by Nityanātha Siddha and Visnudeva the wonderful drug-substances both local and foreign explained by Nārasimha Pandita, attracted the attention of the scholars all over the country. These works of high standard reveal the flourishing condition of the science and the scientists. During fifteenth century, especially after the fall of the Sangamas and the Reddis, there can be found no works available. We do not find any grant given to the physicians from A.D. 1420 to A.D. 1545. After Devaraya II till Krishnadevaraya came to the throne, there was no political stability in the Vijayanagara empire. The great Saluva ruler Nārasimharaya, though succeeded in establishing peace in the empire, was busy in suppressing the revolts or external attacks. That might be the reason to some extent for the negligence towards the patronage of the sciences like Ayur-

veda. But it is a great wonder that we do not find any medical work written under the patronage of Krishnadevaraya or any grant made to the physicians. We do not know certainly why he, whose regnal period is known for its literary celebrity, did not extend patronage to the physicians. In *Āmuktamālayada*, we find a verse in which he says that the saints and the physicians should not be given more grants or gifts lest they would neglect the welfare of the people resulting in the spread of diseases. As the contemporary literature reveals, it was an age of pomp and pleasure. From the ruling class to the common people, all classes tried to lead a life of enjoyment and passion within their resources. Krishnadevaraya might have tried to prevent such kind of developments enter into the lives of the saints and physicians whose services were badly needed for the welfare of the society.

After the reign of Krishnadevaraya, Sadasivaraya and Ramaraya patronised all the sciences including Ayurveda. Ayurvedic scholars again started writing works after finding out many new things. Basavaraju, Bhāvamīśra, Rāvaṇapandita, Pānakālarāya, Śrīnāthapandita, Śrīnivāsārya, Trimallabhaṭṭa, Tulluru Śarabharāju and Mādhavapandita wrote independent works with many new things and excellent prescriptions. Cilakamaṣṭri Vēṅkatācārya, Dhēnuvukonḍa Kēsava Elakūci Bālasaraswathi, Irlapāṭi Pēraṇa, Cuṇḍi Lingayārya, etc. undertook translatory works. Though their works were mentioned as translations from Sanskrit originals, they deviated from the original in many places and added many new methods and prescriptions. The verses of Vēmana and Hejību Rāmanna are meant for reform in the medical aspect in the society. Thus after Krishnadevaraya till the close of the seventeenth century, there can be found many valuable works written under the patronage of the kings, feudal lords and the religious institutions.

CHAPTER III

The Physician, his Training and Status

Pānakālarāya, the author of *Nētradarpaṇam* writes that among all of branches of learning, medicine is the best and no other science is equal to that as it is intended for the *parōpakāra*- 'service to other'. He further says that by the medical profession, " *Aśvins* became the physicians of the 30 crores of gods; *Ātrēya*, *Markandēya* and *Kaṅkāyana*, etc. became the physicians for the sages; *Bala* and *Susena* earned good name under *Śrīrāma*, etc., *Bhaṭṭi*, *Śakti* and *Śabara* became famous in the court of *Vikramarka* and all physicians prospered under the rule of *Bhōja*. The medical profession is an attractive one and also gets respect from rulers and is a means for the good prosperous life in this world and also for the better place in the next world."¹ The sources prove that not only the scholars who practised medicine but also others including , chieftains and kings were interested in the study of medicine. The common subjects of study in those days studied by these people were *Vedas*, *Vedangas*, *Grammar*, *Philosophy*, *Mīmamsa*, *Puranas*, *Kavyas*, *Nāṭaka* (drama), *Music*, *Yōgasūtras* and *Ayurveda*, especially *Rasavidya*. *Viṣṇupurāṇam*, gives the list of eighteen kinds of learning which is consisted of the Four *Vedas*, Six *Vedangas*, *Mīmamsa*, *Nyaya*, and

1 *Bulletin*, IV(1),1974,p.11.

Dharma Sastras, the *Puranas*, *Ayurveda*, *Dhanurveda*, *Nītisāstra* and *Arthaśāstra*.¹

Especially for the kings, ministers and the chiefs who used to go on wars very frequently, the fundamental knowledge of *Ayurveda* was much a necessity. It seems that the princes and the chiefs realised this though they maintained the personal physicians and the physicians of the Army, Srinatha in his work *Sivarātrīmāhātmyamu*, while describing a minister's son mentions the subjects of his study which include *Vedas*, *Vedangas*, *Puranas*, *Dharmasastras*, the fine arts like *vina*, *venu* and *nṛtya*, the art of writing poetry, drawing, *vada*, *vasya*, *anjana*, *badanika*, *dice*, *madamasastra*, *jugglery*, *mantras*, *tantriks*, *yoga*, the art of warfare and the detailed study of medical procedure.² *Vikramarka Caritra*, *Dasakumara Caritra* and *Sodasakumara Caritra* also describe the subjects of study to the princes which seem to be the same as mentioned above in *Sivarātrīmāhātmyamu*.³ The Anaparti grant dated A.D.1390 of Kumaraḡiri Reddi mentions him as well-versed in all arts and sciences.⁴ Pedakomati Vemareddi was called as *Sarvajna Cakravarti* in the inscriptions composed by Srinatha and also in the works of Vamanabhattachana. The Velama king Singabhupala II, who ruled the western part of Andhradesa from Raḡakonda in the fifteenth century, also got the title *Sarvajna*. Krishnadevaraya's knowledge in all the sciences including *Ayurveda* can be seen from his writing *Āmuktamālyada*. Venkata II, the Vijayanagara king of Aravidu dynasty was mentioned in the Dalavay Agraharam plates that he was comparable to the ocean in the profundity of his learning.⁵

The fact that the *Aṣṭadiggajas* in the court of Krishnadevaraya were well-versed not only in eight languages but also in *Ayurveda* can be proved from the references in their works. They referred the names of some significant *Ayurvedic* medicines and described their virtues.

1 *Viṣṇupuranam*, IV-103.

2 *Sivarātrīmāhātmyam*, II-127.

3 *Vikramarka Caritra*, I-187 to 190; *Dasakumara Caritra*.II; *Sodasa Kumara Caritra*, I-34.

4 *Reddi Sancika*, p.386.

5 *EI XIII*, p.186.

Allasani Peddana's knowledge in medicine can be seen in a reference of his work when he describes the rising of the Moon thus: "It seems as if the Doctor (time) is bringing along with him a bowl (*Brahmāṇḍa*) filled with milk (moonlight) and a pill (moon) made out of mercury to the people to give them immense health and strength."¹ It indicates the significance of *Rasagūḷika*, its efficacy as *Vājīkaraṇa* medicine, its greatness in its formation and its celestial nature as it was compared with the Moon.

Various other sources prove the fact that the science of medicine developed in its own way both in herbal and *Rasasiddha* systems. A lot of research work was done in various learning centres spread through out Andhradesa. Students from Arabia, and Iran came to India to study Ayurveda. Fluzel, an European traveller, noticed this fact and noted in his travel work that without studying Ayurveda, the Arabian students thought that their study of the science of medicine was considered incomplete. He also mentions, as the words of Suleiman an Arab merchant, that there was a medical college, situated in Andhradesa to which Arabian students came to study Ayurvedic systems.²

BRAHMANICAL EDUCATION

Eminent scholars who were well-versed in many sastras and arts conducted small schools of their own and trained the students. Usually the *guru*, who was teaching Ayurveda was also a practising physician and was able to teach the subject both theoretically and practically. This type of education was mainly the result of private initiative and effort. In *Manucaritra*,³ we find a reference to the scholar versed in Ayurveda and teaching to the students without financial help from the local chiefs or rulers. In such schools, the students used to get aims

1 *Manucaritra*, III-25.

2 Suravaram Pratapa Reddi, *Andhrula Sanghika Caritra*, Andhra Saraswata Parishat, Hyderabad, 1950, p.216.

3 *Manucaritra*, V-7.

from the people of the village or from nearby villages.¹ Some scholars maintained the learning centres in their own houses after receiving land-gifts or gifts of villages (agraharas). In such schools, the students were provided both boarding and lodging in the house of their guru. The *Parahita* physician who were referred in the inscriptions of medieval Andhradesa were mentioned as scholars in Vedic knowledge and are said to have taught Ayurveda to students. They received grants from the rulers to maintain their profession perhaps also a maintain the learning centres. The Akkalapudi, the Ponnupalli and the Kaluvaceru grants registering the gifts of villages testify to this fact.² An epigraph dated A.D.1505 informs us that Bhujabala Pratapa Nṛsimha Maharaya, "in the course of bestowing the great gifts, among them, when bestowing the Mahābhūta-ghaṭa in the presence of God Sri Ranganatha." on the bank of the Candrapuskarani, honoured Ranganathabhatta, versed in the six Darsanas, with the office of Acarya together with the gift of the village Honnakahalli in the kingdom of (the Ummattur chief) Chikkaraya Odayar.³ Such scholars who received grants used to maintain schools appointing teachers who were experts in different branches of learning including sciences. According to a copper plate inscription, a village was granted to one Sampat Kumara, who had with him excellent and learned Brahmins of various *gotras* and relatives, who was the foremost among the physicians and who was renowned son of the great Govinda Pandita, who was a great scholar in Ayurveda and Vedangas.⁴ A Brahmin doctor was the recipient of a gift of land perhaps in recognition of his abilities in his profession.⁵ Srinatha, the court poet of the Reddi kings (Kumaragiri and Virabhadra Reddi) praises them for the patronage. They extended to learned

1 *Manucantra*, Verse-13.

2 *supra* - pp. 126-129.

3 *EC*. iv, Gu. 67, p.47.

4 *EL*. VIII-pp.307-17

5 Copper Plate 2 of 1913-14.

Brahmins and for the rich Agraharas which they granted to them.¹ Errapraggada also described how the Reddi kings encouraged the Brahmins to perform their pious duties by granting *agraharas*.

RELIGIOUS INSTITUTIONS

During medieval period, the temples and the mathas were the two important institutions which protected the culture and life of the age. These institutions maintained learning centres as well as hospitals for the promotion of the science of medicine.

We find inscriptional evidence to show that maintaining a learning centre in the temple was considered a primary necessity. There are many inscriptions registering the endowments made to the temples to maintain a learning centre. According to a group of inscriptions from the Tirumala Tirupati Devasthanam, endowments were made for the *adhyavana* services in the temple, or for the celebration of *Adhyayanotsavam*.² The Pithapuram plates³ which are dated somewhat earlier to this period register the provision made for maintaining the teachers in which a provision was also made to the maintenance of a physician, who should teach Ayurveda to the students. In most of the village temples, the priests, were also the physicians also. But in big temples which were located in big villages, towns or *agraharas*, a part of the temple was allotted for taking classes and for the maintenance of hospitals. The temples located at Kalahasti, Tirupati, Sri Rangam, Draksaramam, Srisailam, Alampur, Vemulavada, etc., maintained learning centres where Ayurveda was taught to the students both theoretically and practically by maintaining hospitals in the temple complex. Nitynatha Siddha of 14th century and Gaurana of 15th century wrote that there were students who were helping their preceptors in preparing the mineral drugs on Srisailam.⁴ One

1 *Bhimeswarapurānamu*, 1-41,42.

2 *TTDI*, III-8, 9 & 10.

3 *EL*, Vol. XXIII.

4 *Navanatha Caritra*, V. p.296.

Srinivasa, Surnamed Garudavahana is said to have repaired a hospital which had suffered on account of Muslim invasions and installed an image of Dhanvantari Emberuman in the temple at Srirangam.¹ Mudumbi Venkatacarya, the author of Telugu *Rasa Pradīpika* studied medicine in the temple-college, situated in the Narasimha Temple² at Vēdātri (Krishna district).

Another important agency of education was the *Matha*. During the medieval period, in Andhradesa, most of the *mathas* were Saivite. Of these, Golaki Matha which had its branches in Andhra, Karnatake and Tamil regions was the most interested in the propagation of learning.

The main golaki matha, during the reign of the Kakatiyas, was situated in and around Mandadam village. Malkapuram inscription dated S' 1183(AD 1261)³ states that Visweswara Siva, the spiritual *guru* of Kakati Ganapati Deva, was granted two villages by the king. There he built a temple to God Visweswara, a Saiva matha and a choultry. In that matha, there was a college consisting of Brahmins who were well-versed in *Rig*, *Yajur* and *Sāma Vedas* as well as in Grammar, Logic and literature. Five of the Brahmins were scholars specially versed in philosophy. A physician with nurses and clerk was appointed in the hospital built there with two wards i.e., General and Maternity. Steps were taken to impart education to all people belonging to any caste or any region in secular, scientific and technical branches also. All these instructions were given separate endowments in terms of Penumbaka Putti lands. Moreover several facilities were provided for the students who were learning medicine, the hospital attached to the matha served as a practical training centre. As the hospital is said to have been built in a vast area, there might have been reared a garden also for the supply of herbs. Visweswara Siva built many mathas. He built the Upalamatha in Kaleswaram and gifted to it the villages of Ponnagama, set-up God Visweswara. Also he built a

1 81 of 1936-37; Re.Para-49.

2 *A Des. Cat. Tel. Mss.* Vol.XI,P.2726.

3 *ARE* 94 of 1917, *JAHR*S, Vol.IV,pp.147-162.

matha at the town of Mantrakuta and gifted Manepalle and Utupalli and two chowtries of the God. Further he built a *matha* at Eleswaram to the South-east of Srisailam. Ganapati Deva gifted to it the village of Kandra Kota in the Palnadu Visaya as Acarya Daksina set-up a linga at Nivrtti (Sangameswaram) and gifted to it Bunnuru and Dudyala in the Vellalasthala, and setup Visweswara at Uttara Somasila and gifted Ibaprolu to him.¹ During the reign of the Raya's of Vijayanagara the Golaki Matha had its branches in Bellary, Kurnool, Guntur, North Arcot, Ramanatha Puram and Madurai districts in Tamilnadu. Some of the important golakimathas in Andhradesa were at Srisailam Puspagiri, Tripurantakam and Tirupparankondram.² Aghora Sivacarya in Puspagiri Matha³ and Immadi Rudra Sivacarya of Terku matha at Kalahasti⁴ were the two famous heads of these matha in the Vijayanagara period. Usually, the heads of the golaki matha were great scholars in many languages and in many sciences and philosophy. The medium of instruction in higher studies was Sanskrit.

There were also many other mathas like Erukalamatha at Pilalamarri, Tiruveedhi matha at Daksaramam, Kapila matha at Nadendla, etc. At Srisailam there were many *mathas* among which Bhiksavrtti matha became significant. Santabhiksavrtti Ayyavaru who was the head of the *matha* in 15th century was very capable and made the matha very strong. He encouraged both religious and secular education. Many grants were made to this *matha* and it became very rich by the middle of the 15th century.⁵ It is not improbable to surmise that this matha which dominated the other mathas might have maintained a learning centre and a hospital too, since that place was regarded by the people throughout India and abroad as a centre of Rasa Siddha system of medicine. People from all corners of the country and from outside also visited this place to learn the science

1 *Inscriptions of Andhradesa*, No.183, p.245; SII,X,395; *JAHRS*, IV, pp.147-162.

2 *ARE*-272 & 323 of 1905.

3 *ARE* 307 of 1905.

4 *ARE* 164 & 172 of 1924.

5 *The Kaifivat of Srisailam Temple*, pp.10.

or to take treatment. The Kaifiyat of Srisailam temple informs us that Śānta Bhikṣavritti Ayyavāru, the trustee of the temple maintained an educational centre and a choultry for the students who came to study there. And it also informs us of the village grants made by the local rulers to the learning centres and the scholars around Srisailam area to impart free education.¹ *Basavapurāṇam* mentions one Kalidevayya as the physician attached to the temple of Saiva matha.² An inscription dated S'1429(AD.1505) refers to the temple

Gurukkal, Visweswara Sivacarya of Bhikṣamatha and others.³ Chandrasekharamatya, a minister of the Rayas of Vijayanagara gifted a village to a resident of Basava Matha in AD.1529.⁴

Receiving such grants from the rich people, followers, feudal lords and kings, the mathas played a prominent part in imparting education in the religious as well as secular and scientific education to the people irrespective of caste or creed. These mathas being mostly Saivamathas, contributed much for the development of Rasa Siddha system of medicine.

Some of the temples and the mathas seem to have maintained libraries containing many palm-leaf manuscripts. King Bukka II is said to have made a grant of land in A.D.1407 to a Pauranika Kavi Kṛṣṇa Bhatta for renovation and proper up-keep of a library(Pusthnakabhāṇḍāra) belonging to the *matha* of Sringeri.⁵

The Vaisnavas vying with the Saivites came forward to impart education to the people of all castes. The Srisailapurna family which dedicated to the spread of Vaisnavism and which formed a line of preceptors in sections. Vira Kṛṣṇudu a golla by caste became a scholar in Ayurveda under the guidance of Sudarsanacaryulu of Srisaila family.⁶

1 *Basavapurāṇamu*, II, p.40.

2 *ARE* 354 of 1912.

3 *MER* 15 of 1915.

4 *ARE* 283 of 1919.

5 *ARE* 283 of 1919.

6 *A Des. Cat. Tel. Mss.* Vol. XI, p. 2714.

Though we do not find any evidence to prove the fact that the Jaina Basadis played a notable role in imparting education in sciences like medicine during this period. An inscription much earlier to this period (11th century A.D.) informs us that Aggaḷayya, a Jain Surgeon built two Jain *Basadis* in the Telangana region of Andhradesa.¹

Usually, the technical and professional education was imparted by the father to his son. The scholars in Ayurveda, in addition to protecting the hereditary profession, imparted the knowledge to the worthy students who came to them with great zeal. The inscriptions belonging to the families of Parahitas and the grant made to Sampatkumāra, son of Govinda paṇḍita² testify to this fact. Parahita Pandita, the recipient of Akkalapudi grant is mentioned as one who taught Ayurveda to many students. Edward Ives who visited this part of the country in 1755, says "like the other castes, the son of a doctor is a doctor also and so he will continue to be from generation to generation".³ "The members of different professions underwent courses of training suited to their respective professions. Such courses were in the nature of apprenticeship."⁴ A doctor born in a doctor's family too received such type of practical training at his home. But it was always regarded compulsory to gain scholarship atleast in Sanskrit and Telugu languages and the knowledge of *dharma śāstras* to become a doctor. But it seems after seventeenth century, with the rise of the European power in the country, proper encouragement was not given to the indigenous system of medicine. That's why it seems that the physicians too did not pay much attention to the acquisition of scientific knowledge and to continue the incessant research work started by their forefathers. Dr. Edward Ives who visited India in the eighteenth century writes that all their medical knowledge was in their written accounts, which they never study but continue the profession

1 *Bulletin*, VII, (3&4), 1977, pp.127-130.

2 *EI*. VIII, pp.307-17.

3 HK Kaul (ed), *Travellers India, An Anthology Chosen*, Oxford University press, Delhi, 1980. p.300.

4 T.V.Mahalingam, *Administration & Social life under Vijayanagara*, II, p.249.

from generation to generation.¹

SELECTION OF A PROPER PRECEPTOR

The most important duty of the person aspiring to become a physician was the selection of a proper preceptor and present himself to him. It was believed that especially the sciences like medicine cannot and should not be studied without the guidance of a proper preceptor. Vemana who was an expert in herbal and rasasiddha medicine declared to the world thus : "Are not all they who read the whole sastras on a level with those who do not read them, if from the mouth of the teacher they learn not true application?"²

Every scholar in Ayurveda cannot become a teacher. There are certain qualifications laid down in the ancient medical texts of India. According to Caraka, a teacher in the medical science should have the following qualifications: " He should be one whose doubts have all been cleared in respect of medical scriptures; he should be possessed of experience; he should be clever; he should be compassionate towards those who approach him; he should be pure of conduct; he should have practised hand; he should have all the implements of his profession; he should have all the organs of sense; he should be conversant with the nature' he should be conversant with the tendencies and the acts of the healthy and of the diseased; he should be one whose knowledge of the medical sciences has been supplemented by the knowledge of other branches of study; he should be without malice; he should be without a wrathful disposition; he should be capable of bearing privations and plain; he should be one well-affected towards disciples and disposed to teach them; he should be

1 *Op. Cit.* p.302.

2 *Verses of Vemana*, 909.

capable of communicating his ideas to pupils that seek his instructions.”¹ Lōlamba Raja, a great scholar-physician of medieval Andhradesa, describing the characteristics of a teacher in medicine says ‘A wise man with sound knowledge in Ayurveda, always speaking truth, free from anger, skilled in the art of healing, having good knowledge in the examination of pulse and various methods of treatment, skilled in preparing various mechanical contrivances (*yantras*), attained self-satisfaction and merciful can be regarded as a proper person to be chosen as a guru to take instruction in the science of medicine.”² From the literary sources, we come to know that a physician having these characteristics was much esteemed in the society and the students regarded it a fortune to study under his guidance.³ The Parahita physicians who made their homes as learning centres were famous for their piety and profound knowledge in all sastras.⁴ A copper plate grant informs us that Sampat Kumara, son of Govinda pandita maintained a school at his home in which many excellent and learned Brahmins gathered to receive instruction at his feet. The record informs us that Sampat Kumara was well-versed in Ayurveda and Vedangas.⁵

SELECTION OF STUDENTS

There are some pre-requisites to become a student in the science of medicine. Everyone who wanted to study this science was not admitted either at a Brahmanical school or at a monastic learning centre. A student, seeking admission, should have completed general course of education with an emphasis on Darsanas. Even then the selection or rejection of the student was left to the preceptor. The preceptor should first examine the person who presents himself as a

1 *Caraka Samhita*, III-8.

2 *Sadvaidyajivanam*, v.145, p.31.

3 *Manucaritra*, V-7.

4 *EI*, Vol.XIII, No.24.

5 *EI*, VIII, pp.307-17.

pupil, to see that he possesses certain physical, moral and intellectual endowments. *Caraka Samhita* fixes the qualifications of a person to be selected as a student in Medicine thus: "His eyes, mouth and nasal line should be straight, his tongue should be thin, red and unslimy; his teeth and lips should have no deformity; he should not have a nasal voice; he should not be defective in respect of any limb; he should have all his senses perfect; he should be of a mild disposition; he should be noble by nature; he should not be mean in acts; he should be disposed for solitude; he should be free from haughtiness; he should be of a thoughtful disposition; he should be free from those faults which go by the name of *Vyasanās*, viz., hunting, gambling with dice, sleeping during day time, speaking ill of others, infatuation with women, excessive eddiction to singing, dancing and instrumental music, purposeless sauntering etc.; also he should be free from wrath; he should be edued with excellent character, purity of behaviour, devotion, cleverness, and compassion for all, he should be free from cupidity; he should be without sloth; he should seek the good of all creatures; he should be prepared to obey all the commands of his preceptor. He should be possessed of intelligence; he should be free from pride; he should be endowed with a large understanding; he should have power of judgement and memory; he should have a liberal mind; he should belong to a family, the members of which have studied the medical scriptures or followed medicine as a profession; he should have devotion for truth; he should be fond of study; he should be devotedly attached to both theory and practice of medicine."¹ It is a well known fact that the ancient medical scriptures were very carefully studied and the ethics mentioned in those scriptures were put into practice in the later days also with some minor inevitable changes in course of time. Perhaps, keeping in mind the tradition as well as the trend in the then society, Peddana the favourite poet-laureate of Krishnadevaraya, described the rejection of a zealous student by a preceptor on the pretext that the person spends

1 *Caraka Samhita*, III, 8.

the time always with songsters, courtesans, dancers and gallant. And the guru bluntly rejected to admit him as his student because the student was proud of wealth and authority and did not know how to behave with good manners.¹ The student might have mentioned that he would pay the fees. Then guru tells him that he does not lose anything and will maintain likewise even if he does not teach such a person who belongs to a ruling class.² The copper plate grant of Sampat Kumara mentions that he was imparting Ayurveda to excellent and learned Brahmins.³

WAS THERE ANY CASTE DISCRIMINATION?

Though priority was given to good conduct and intelligence in the selection of the student in the course of medicine, It seems that students belonging to the higher castes such as Brahmins, Ksatriyas and Vaisyas were given preference in the ancient period. Susruta lays down the following qualification for a student of Medicine: "A preceptor can admit as a pupil, a son of a Brahmin, Kṣatriya or Vaiśya of a good family and sixteen years of age." During the medieval days in Andhradesa, we do not find any such rule implemented. No doubt we find many scholars from the Brahmin caste, but we cannot say that the other castes were not given instruction in medicine. We find many scholars from other castes. Especially Jangama families took up the medical profession. The Vaiṣṇavas and the Saivites vied with each other in encouraging learning among the common people so as to gain the popular support to their respective religious sects. Thus we find many references to the scholar-physicians who belonged to the fourth caste also. For example Vira Kṛṣṇa, the author of '*Kāyacikitsalu*' was a golla by caste. Basavarāju was a Jangama.

1 *Manucaritra*, V-9 & 11.

2 *Ibid*, V, 11.

3 *EI*, VIII, pp.307-17.

INITIATION OF THE PUPIL

When the conditions for admission into the medical course are found satisfactory and the student is found fit for undergoing the course, he is subjected to a kind of initiation known as *Śiṣyōpanayana*. It is a consecration ceremony similar to that associated with other crafts. During the performance of the ceremony, deities and ṛsis associated with Ayurveda are worshipped. Special attention was paid to the worship of Dhanvantari, the Lord of Ayurveda. During this ceremony, the student should take an oath before the preceptor. The preceptor gives the following charge to the pupil: "You should give up lust, anger, avarices, folly, vanity, pride, envy, rudeness, deception, falsehood, idleness and all other reprehensible conduct. You should always have your hair and nails cut short, should put on red coloured cloth, lead a pure life, avoid sexual intercourse and be ready to obey your superiors. You should remain, go about, lie down and sit down, eat and study according to my wishes, and you should always be ready to seek my welfare. If you fail in this your duty you will be committing sin, and your learning will be fruitless. It is the duty of all good physicians to treat gratuitously with their own medicines all Brahmins, spiritual guides, paupers, friends, ascetics, neighbours, devotees, orphans, and people who came from a distance as if they are his own friends. Hunters, fowlers, outcasts and sinners should not be treated. By acting in this way one makes himself known and attains friends, fame, wealth, and objects of desire."¹ Caraka also gives the list of similar and additional charges to the pupil.² The underlying principles of these charges is that the physician must himself possess a sound and healthy body, observe rules of Hygiene and avoid all kinds of defilement, infection and contamination and be a man of strict morals as having to deal with patients of both sexes and of all sorts and conditions. Even after the performance of this ritual, the selection of the

1 *Susruta Samhita*, I-2.

2 *Caraka Samhita*, III-8.

student was not complete. The student had to be on a probation for a period of six months. This period was something like pre-registration course. During this period, the students general aptitude for the profession was studied by the 'guru' while the student the preliminary subjects. Thus there was an opportunity for the preceptor to weed out the incompetent students, before the student was actually admitted to the medical course proper. But we do not find any evidence to the existence of the probationary course during the medieval days. Neither the medical texts nor the general literary works testify to the provolence of this practice.

THE TRAINING

After the initiation of the student by the preceptor, the real training commences. With regard to the duration of the training, there seems no set rules and it mainly depend on the student to get by- heart. grasp the meaning of it and undergo the practical training. Generally, after completing the general education in Vedas, Vedangas, Puranas, and Sastras one entered into this professional course, probably at the age of 16 or around that age as prescribed by Susruta. The instruction was based on a recognised and approved textbook. During the ancient and medieval days, in India, the work of the ancient triad i.e., *Caraka Samhita* and *Aṣṭāṅgahṛdayam* were considered as the compulsory texts to be studied by the students. In medieval Andhradesa, in addition to these texts, many other South Indian medical works on Rasasiddha were studied by the scholars. Many scholar-physicians mentioned in their works what they had studied. Basavaraju mentioned that he studied the following books:¹ *Carakamu, Mādhava Kalpamu, Bhairava Kalpamu, Vāgbhaṭamu, Siddha Vidyābhūḥ, Siddha Rasārṇavam, Bhēṣajakalpam, Jātuka Karṇaka, Mādhavīyam, Aśvanīyam, Āyurvēdam, Sindhūradarpaṇam, Pūjyapādīyam, Dēvīśāstram, Candrakalpam, Brahmagāruḍam, Cīntāmaṇi, Jyōtiṣam,*

1 *Basavarājīyam*, I, 5 to 12.

Kāśīkhaṇḍam, *Śārīram*, *Sūtram*, *Nityanāthīyam*, *Nandināthīyam*, *Ag-nimatāntaram*, *Matāntaram*, *Anyasāstram*, *Cikitsā-sārasangrahaṁ*, *Karmavipākam* and *Rēvaṇa siddha kalpam*. Muḍumbi Vēnkaṭācārya, the author of *Āndhra Rasa Pradīpika*, states that he had studied the works on *sarira*, materia medica, diagnosis, *Rasapradīpika Sūtras-thāna*, *Carakam*, *Bhēṣajakalpam* and *Bāhaṭam*. He first paid his regards to Bahaṭācārya, the great scholar-physician of medieval Andhradesa. Thus many scholars mentioned that they had studied the works of the Ancient Tels and especially the *Cikitsāsthāna* of Caraka, *Śārīrasthāna* (anatomy) of Susruta, and *Aṣṭāṅghṛdaya* of Vagbhata in addition to the *Nidāna* of Mādhava, *Bāhaṭam*, *Rasapradīpika*, *Bhēṣajakalpamu*, the works of Pūjyapādamuni, Lōlamba Raju, the works on materia medica such as *Rājanighaṇṭu*, *Ṣaḍrasanighaṇṭu*, *guṇapāṭhaḥ*, *Vaidyanighaṇṭu*, etc.

During this period, many scholars who thoroughly studied the works of their ancestors and fully grasped the knowledge started writing works in Telugu also. From the later part of the fourteenth century, medical works in Telugu started appearing. They were written according to the need of the physicians of this region. The new diseases appeared in this region were explained and many new prescriptions were found by the scholars of this region after a great research work. Such new works were given importance in the instruction of medical course during this period. Especially *Bāhaṭagrantha*, *Vaidya Cintāmaṇi* and *Bhēṣaja Kalpam* were widely read and followed by the scholars.

As in general education, the method of by-hearting and reproducing was given importance in the first stage of the study. The student must gain perfect knowledge in all the eight branches of Ayurveda. Both medicine and surgery had to be mastered. But in medieval Andhradesa we find lesser importance was given to surgery though it did not completely vanished. In its place, alchemical prescriptions took greater importance. The development of Yoga also made surgery not so necessary in many cases. Any way much more importance was given to herbal and *Rasa* (mercurial) drugs. That's why we find much importance given to medicine and pharamacology in the instruction. According to the information available from the literary sources, the

pupil first studied the eight branches of Ayurveda thoroughly by the time he started his practical training under the guidance of his preceptor. According to *Carakasamhita*, the study, consists of learning by-heart when the student reads the principles serially, utters them loudly in a good rhythm and often repeats them.¹ Pietra della valle, the Portugese traveller, who visited Vijayanagara empire, described the method of teaching while describing the working of the schools here. He says "they (the pupils) were four, and having taken the lessons from the master, in order to get the same by-heart and repeat like-wise their former lessons and not forget them, one of them singing musically with a certain continued tone (which hath the fore of making deep impression in the memory) recited part of the lesson; as for example, 'one by itself makes one', and whilst he was thus speaking he write-down the same number, not with any kind of pen, or paper but (not to spend paper invain) with his finger on the ground, the payment being for that purpose strewed all over with very fine sand after the first had writ what he sang, all the rest sang and write down the same thing together. Then the first boy sang and writ down another part of the lesson; as for example, 'two by itself makes two' which all the rest repeated in the same manner and so forward in order. When the payment was full of figures, they put them out with the hand, and if need be strewed it over with new sand from a little heap which they had before them wherewith to write further. And thus they did as long as the excercises continued, in which manner likewise they told me, they learnt to read and write without spoiling paper, pen or ink which certainly is a pretty way."² In the study of medicine also, the students used to learn by-heart the *sūtras*, *nighantus* and *Yōgas* in the same manner. Thus the first stage was for the pupil to receive the texts from the lips of his preceptor and to commit them to memory by recitation and repetition.

In the second stage, the teacher should explain every word of the text and the pupil should repeat the explanations. A student who had

1 CS, III, 8-6.

2 Travells of Pietro della valle, II-p.227.

studied the text without knowing their meanings was compared with a beast carrying a load of Sandalwood without enjoying the pleasure of its fragrance.¹ If the preceptor was the master of only one branch, the student was advised to approach the masters of the other branches to acquire knowledge in these branches.² Ugrādityācārya, an Andhra physician of the 9th century A.D. writes that the physician should know the meaning of the books of the science, be intelligent, have the knowledge of different sciences and should have studied under many teachers.³ Śarabharāju, the scholar physician of 17th c.A.D. and the author of *Śarabharājīyam* states in the beginning verses of his work that he had studied under many *gurus*.⁴ It was only after getting thorough training under many *gurus* he was able to compose a competent medical work.

PRACTICAL TRAINING OR APPRENTICESHIP

After studying the medical texts and grasping the meanings thoroughly, the student should learn the art of healing practically. Vemana stresses the importance of practical knowledge thus:⁵ “without self-observation and experience the mere learning of science will never remove the doubts of the aspirant, no more than darkness will be dissipated by a painted lamp’ Without practical training, the guru did not give him permission to start his profession as a physician. In *Manucaritra* of Peddana, we find that the student after learning the

1 SS, I-4.

2 *Ibid.*

3 *Bulletin, IJHM*, Vol.1, p.211.

4 *Bharati*, 1938, July, p.505.

5 *VV*, 1091.

science with its eight branches had undergone the practical training.¹ In the practical training, he learnt about the six tastes and their qualities and effects on the . He also learnt the treatment of diseases beginning with *jvara* and ending with *vr̥sa*.² It means that he practically learnt the *materia medica* and treatment of all diseases. In this stage also the pupil lived in the house of the *guru* or in the *mathas* if it was a monastic school. The pupil used to assist the *guru* in the collection of *materia medica*, in grinding the drug- substances and in the house-hold work. In this stage, the preceptors used to take their students to the nearby forests to train them in the identification of the various drug substances, herbs, their characteristic forms, their effects, etc. till the students became proficient in the subjects.³ The student used to watch his *guru* while treating the patients. By doing all these, he became familiar with the various tools and procedures of the medical profession.

In case of training in surgery, the physicians of medieval Andhradesa might have followed the traditional procedure as mentioned by Susruta. According to him, the student should learn the primary practical training in surgery by operating on the skin of the dead animals, on the cloth, leather bags, bladders filled with water, the stalk of the water lily, bamboos, tubes, dried gourds, water melons, cucumbers, etc.⁴

During medieval period, the Andhra kings showed much interest in holding discussions in their court on various subjects. They appointed *vidyādhikāris* to see that these discussions be arranged very often.⁵ These discussions were on various *sastras*. Tadepalle Panakalaraya, the eye-specialist and a scholar at the same time, mentioned in his work that he made the kings satisfied with his knowledge in medicine and was honoured by many kings and kings of

1 *Manucaritra*, V-16.

2 *Ibid*, Verse-17; Bhojarajiyamu, II-188.

3 *Navanatha caritra*, V-p.282,296.

4 *SS*, I-9.

5 *Bhimeswarapurānamu*, I-23; *Simhasana Dvairimsika*, VI-44.

kings.¹ These discussions were recommended by the ancient scholars also so as to improve their subject and their own knowledge even at the time of training. Ugrādityācārya, argued with the other scholars and doctors in the court of Amoghavarsha I, supporting his views. His principle was mainly to advocate the uselessness of flesh diet and the animal substances for which animals have to be killed for the sake of benefitting human beings. He recommended as substances the articles derived from plants and mines. These discussions helped the physicians to exchange their views and to continue research in the field of medicine. Caraka mention the benefits of the discussions thus: "Medical men should hold discussions with other medical men. Discussions increase their zeal for knowledge, clarifies knowledge, increases eloquence, brings renown,, removes doubts in the learning previously acquired and strengthens convictions. In course of discussions, many new things may be learnt and often, out of zeal an opponent will disclose the most cherished teachings of his gurus".²

Practice :

After getting proficiency in all branches of the science, the physician should get the permission of his *guru* and then of the king to start his practice. Kautilya in his *Arthaśāstra* refers to this rule.³ From the ancient period, the State took keen interest in the practice of medicine and encouraged only the wellknown, learned and well-trained physicians. Lōlambarāja described the qualifications of a physician who could be bestowed with the permission to start his practice as a physician thus : "A person learned in the Science and Art of Medicine having been duly trained by a well qualified teacher endowed with the healing touch (*amṛtahasta*) experienced in various kinds of treatment, possessing good memory, bold, merciful, clean in

1 *Bulletin, Ind. Inst. Hist. Med.*, Vol-IV, 1 p.10.

2 CS. III-8.

3 D.V.Subba Reddi, *Climpses of Health & Medicine in Mauryan Empire, IJHM*, Hyd, 1962, p. 2.

the deeds and pure at heart.”¹ Untrained practitioners were considered as *kuvaidyas* or quacks. Generally a well-trained physician was respected in the society and was considered as an incarnation of Lord Nārāyaṇa.

Hejību Rāmanna expressed his opinion that the physician, who started individual practice newly was advised to get acquaintance with the scholars. To be in touch with new developments in the use of materia medica, he was suggested to have discussions with the monks, jogis, rasavadas, yogis, the medical scholars, paurāṇikas, the foreign physicians, etc. and to exchange his views with them.² Bhāṃsra also advised the physicians to accept good things from the other systems also to receive and introduce in their practice.³

PHYSICIANS AT WORK AND THEIR STATUS

The sources of the history of Andhradesa inform us that the kings here maintained not only a *Pranacarya* (king's personal physician) but also many other physicians and scientists to serve the royal palace and the harem. Besides the court-physicians, there were many physicians spread throughout Andhradesa.

Ayyalaraju Narayanamatyudu, the author of *Hamsavimsati* described two kinds of physicians i.e. the Vaidyas proper and the *Bhūtavaidyas*. In this work, we find the physician dressed thus; “The physician has a curly hair and wears a turban which has a silver-threaded border; he puts on a half-old cloth over his shoulders, a ring (without any stone, which is known as ‘*Cuttungaramu*’ to the little finger, rings studded with stones to the other fingers and concave ear-rings; he smears sandal paste on the forehead; he holds a bag of medicines under his armpit and wears shoes.” Such a physician chewing betel is described as passing by in the street.⁴ He is mentioned as

1 *Sadvaidyajivana*, p.37.

2 *A Des. Cat. Tel. Mss.*, GOML, Vol. IX, No.2448, p.2720.

3 C.S. III.8.

4 *Hamsavimsati*, I-232.

an expert in making fine conversation with others and capable of maintaining his profession smoothly. He is said to have endowed with so great a memory and recollecting power that he can give answer without hesitation in an argument with the Aswani Kumaras.¹ Tal-lapaka Tiruvengalanatha of sixteenth century, the author of *Paramayōgivilāsamu* in *dwipada* metre, describes the physician thus:² "The physician held a bag of medicines under his arm pit, wore a fine cloth over his shoulders, he placed cotton in the ears, put on a turban on the head and had a ring of an alloy of five metals, had the mark of religion (Īrdwapundra) on the forehead, had emblic, myrobalan in the right hand; *Bāhaṭapustaka* was half appearing in his hand through the upper cloth; he was murmuring the *guṇapāṭha* (materia medica) in himself and looking around for the herbs.

The foreign travellers also give some information regarding the profession of the physicians. Van Linschoten notices the position and status of the physician and writes thus : "There are in Goa many Heathen phisitions which observe their gratuities with hats carried over them for the sunne, like the Portingales, which no other heathens doe, but (only) Ambassadors, or some rich merchants." This description indicates the high status of the physician in the society.

The Royal physicians held the highest status among all the physicians. They were attached to the court and their chief duty was to serve the royal palace and the harem. The physicians who gained the favour and confidence of the king was appointed as the *Pranacarya* of the king. Laxmanapandita was the *Prāñācārya* of the Vijayanagara king Bukka II. Viṣṇudēva, the author of *Rasarājyalaxmi*, was in the court of Bukka I. Singanarya was the court-physician of Pedakomati vemareddy of Reddy kingdom of Rajahmundry. One of the most important duties of the king's *Prāñācārya* was to safeguard the king against the possibility of being poisoned. He was entrusted with the daily supervision of the royal kitchen and the dishes served to him. The food, drink or even clothes or flowers or anything that reached

1 *Hamsavimsati*, V-233.

2 *Paramayogivilasamu*, p.450.

to him were sent after thorough examination. The physician functioned also as the army surgeon in times of wars. Laxmanapandita work *Vaidyarājavallabha* informs this fact. Laxmanapandita accompanied the army and stayed with the king in the war camps.¹ The physicians might have accompanied the army along with the necessary articles and instruments for treatment in the camps. Kautilya mentioned, apart from the royal-physicians and the medical practitioners, a separate category known as "physicians of the army" who were paid 2000 panas per annum.² We do not know whether there was a separate category of physicians during this period receiving salaries from the state. But there is evidence to show that there were some physicians who were honoured and appointed as generals. The great Vijayanagara general Araviti Ramaraju Timma is said to be an expert healer. He is said to have caused the eye-sight of a shepherd regained.³ Dhēnuvu Koṇḍa Kēśavāmātya mentioned his father Jōganāmātya as a 'sura' which means 'a vigorous soldier'.⁴ It was but natural to the people who followed the army to the battlefield to get thorough training in the warfare. Likewise, the princes, the sons of ministers and generals also took instruction in medicine.⁵ As a result of it, the physicians who accompanied the army were experts in the warfare as well and the generals who led the army to the battle field also were able to save the army under them with their knowledge in medicine. Not only the kings but also the nobles and chieftains patronised the physicians.

The royal-physician by his knowledge of medicine, should carefully and constantly protect the king from illness or death by the deranged humours or accidents. The king starts his daily routine by conversing with his physician. Krishnadeva Raya, in his *Āmuktamālyada* says, "The king, on waking up early in the morning should start his daily

1 F.S. II

2 D.V.Subbareddy, *Climpses of Health & Medicine in Mauryan Empire*, DHM, Hyderabad, 1966, p.46.

3 F.S. II

4 *A Des. Cat. Tel. Mss.*, GOML, Vol. XI, p. 2729.

5 *Shodasakumaracaritra*, I-34, *Dasakumaracaritra*, II, *Sivaratrimahatmyamu*, II.

routine by seeing the physician who enquires about his health condition and prescribes the regimen to be followed.”¹ Krishnadevaraya also suggests that a king should patronise the physicians and the politicians in his court to develop his health and wealth.² He further says that physicians, astrologers, scholars, poets and *purohita*s are the noteworthy well wishers of the king among his followers.³

Some physicians were appointed as the high officials of the state. Among the *Bāhattaraniyōgādhipatis* of medieval Andhradesa (72 officers in-charge of various departments), we find the mention of the *vaidyas* also.⁴ They are:

1. *Naravaidya*, the physician in-charge of human health
2. *Gajavaidya*, the physician in-charge of elephants
3. *Aśvavaidya*, the physician in-charge of horses
4. *Pasuvaidya*, the physician in-charge of cattle

in addition to the maintenance of their profession, their duty might be the supervision of the medical facilities in the State. They received great respect from the rulers and were provided with seats of honour at special meetings and entertainment programmes arranged in the royal courts and art-galleries.⁵

Besides the royal physicians and the other medial officer, there were also common physicians. As already mentioned, *Hamsaviṃśati* and *Dwipada Paramayōgivilāsamu* give a nice picture of the person of the physician. The Kaluvaceru grant of Anitalli and other grants of the Parahita family put forth the pious, honest and notorious personality of the physicians of the family. They received high status and commanded great respect in the society. Tavernier, the seventeenth century French traveller writes that there were no physicians for the

1 *Āmukta*, IV-271.

2 *Ibid*, IV-270.

3 *Ibid*, V-272.

4 *Hariscandrapakhyanam*; Srikrishnarayandhia *Sahitya Vijnanasaivaswamu*, p.241. S.I.I, X- 23^a

5 *Nṛtaratnāvalī*, VIII-26; F.S., II-96.

common people. He narrates,¹ "You must take notice, that in all the countries where we travelled as well in the kingdom of Carnatika, as the kingdoms of Golconda and Visapur there were no physicians, but such as attend kings and princes." But there is ample evidence to disprove this statement totally. Writing about the different professions prevailed in the society among the Canariins and Decanjus, Van Linschoten, the Dutch traveller of the sixteenth century narrates thus:² " They have divers other handicrafts as Barbars, Phisitions, Carpenters, and such like, as dwell in Goa, so that they are almost as great number as the Potingale Mesticos, and Christians." Discussing about the inhabitants of India, Fryer, the British of the seventeenth century divides Brahmins into two chief sects, Butts and Sanais. He mentioned that "the Butts live a life of study abstracted from all worldly employments, unless such as are for saving and preserving of life, the chiefest and the skilled physicians being of their tribe." He further says that the latter sect of Brahmins also " are blessed by secular offices, farmers, governores of towns, physicians, accountants, clerks and interpreters."³ " Thus it is clear that there were many physicians in the society and they being mostly the Brahmins by caste.

Tavernier, who mentioned that there were no physicians for the common people except the royal physicians, in another place refers to the priest physicians,⁴ and also the physicians in towns and cities.⁵ The author of *Sumatisatakam* who belongs to the fifteenth century writes that one should not live in a village where there is no physician or no temple.⁶ Many references in the literary works and the inscriptions of the period also prove that there were many physicians not

1 John Phillips Esquire (I); *Tavernier's Travels in India*, "Bangabasi" Office, 38-2, Bhowan, Charan Dutt's Street, 1905, p.231.

2 D.V.Subba Reddi, "A Dutch Traveller of XVI century," *Bulletin DHM*, I (1&2), 1971, p.42.

3 D.V.Subbareddi, "A British Traveller of XVII century", *Bulletin DHM*, II (4), p.250.

4 *Tavernier, Travels in India*, p.250.

5 *ibid*, p.231.

6 *Sumati Satakamu*, V-10.

only in towns but also in the villages. The *Parahita* physicians were notorious for their public service with their knowledge in medicine of all branches and veterinary science.

During this period in Andhradesa, we do not find any difference in the mention of the designation of the *Vaidyas* to differentiate them either as physicians or surgeons. Generally all of them were known as *Vaidyas*, who were well-versed in *astangayurveda* both in theory and practice. However, there were also some physicians who, though learned in all branches of Ayurveda, gained fame as experts in a particular branch. Aggalyya of 11th century A.D. though a *Naravaidya* (a physician serving the human beings), gained fame as a good surgeon.¹ Panakalaraya studied ophthalmology in detail and became an expert ophthalmologist. At present, we find some people in villages taking up eye operations and piles-operations and some people treating the diseases like jaundice successfully, each family is expertised in certain diseases.

During the reign of Vijayanagara rulers, the barbers were granted some noticeable privileges. The historians on medieval Andhradesa observed this fact but could not come to a proper conclusion with regard to the cause of such favour shown to the community. It seems that Ramaraja, the regent of Sadasivaraya, being pleased with the barber Kondoja, exempted the barbers of the country from certain taxes. The inscriptions which belonged to A.D.1545 mention that the barbers of the whole country secured this privilege,. Again in A.D.1547 some heads of the barber community made a request, the nature of which is not specified anywhere, to the emperor Sadasiva. The Raya remitted certain taxes to the Barber Timmoja Kondoja and his family, throughout the four boundaries of the kingdom the ruled.² Another inscription of A.D.1547-48 registers the grant of a *manya* land made to Timmoja, Kondoja and Bhadri of (the town of) Badavi, having propitiated the king (rayaramo[chchi] si bedikonda sammam

1 P.V.Parabrahma Sastri, "*Epigraphical Allusion to Surgery in Ayurveda*", *Bulletin IJHM*, 1977, VII (3-4), 127-130.

2 E.C, XI,Mk.6,p.90.

[bam] dha) by the ruler (Sadasivaraya) in connection with a request they had made.¹ "There were some evidences to show that the barbers were skilled in the art of healing certain diseases as rhoumatic pains of the body, blood motions, eye-diseases etc. It might be in recognition of their skill in this art that the barbers Kondoja his son and Bhadroja of the same caste were given privileges and were granted a *manya* land. These people might have requested the Raya to extend the privileges to all the members of the community.

Linschoten writes about barbers as follows:² "There are likewise barbers, which in every end of the street doe call to those that have cause to use them. They keep no shoopes, but ior a small(piece of) money come(home) to mens houses to cut their haire, and made cleane their nails, as well of their feet as of their hands, as also their ears, and their bodies," Fryer writes,³ "I have seen barber undertake the cure of Bloody Flux". It is a well known fact that the practice of massaging with ghee or oil and keeping the plaster of mud on the stomach around the navel against the stomach-troubles is still in practice in the villages. "A Persian record pertaining to the Bijapur dynasty gives an allusion to the prevalence of rhinoplasty (plastic surgery to the nose)performed by a barber".⁴ Anyway, it seems that the learned physicians didnot like the barbers, the gollas, the malas and others taking up healing as profession.⁵ It must be because of the reason that they followed their own traditional methods without the knowledge of the *sastras* (science). The fact that these traditional methods with some developments continued till today, especially the cataract operations, piles operations and the healing of jaundice makes us think that these practices gave good results and gained the favour of the people on account of their efficacy and the resulting easy relief.

1 *Nellore Inscriptions*, II, pp.664-666.

2 *Bulletin, IHM*, I (1&2), 1971, p.39.

3 *Bulletin, IHM*, Vol II(4), 1964, p.250.

4 Dr.B.Rama Rao, "Medical History and Non-Medical Sources"*Bulletin, IJHM*, Vol.XVI, 1986, p.6.

5 *A Des.Cat.Tel.Mss.GOML*, Vol. XI, p.2720.

Haṁsavimśati describes another cadre of physicians the *Bhūtavaidyas* thus:¹ “The *Bhūtavaidya* had the Vibhūti marks on the forehead and in between the two eyebrows he put on a big saffron mark; he wore amulets to both the arms; a serpent-cane and a box with shelves to small compartments in one hand; he was very fearful; to look at.” It is further indicated in the next verse that the *bhūtavaidyas* followed strict rules and regulations in their profession. The people believed that the *Bhūtavaidyas* were endowed with great powers to drive away the demons and evil spirits and to cure the mental diseases.²

The chapter on *Dūtādhyāya* which contained the method of making prognosis on the basis of the moods, the time, direction etc. of the messenger included in the medical texts reveals the fact that the physicians were called to the house of the patient. This is an ancient system. In ancient India, the physicians used to journey in the surroundings with his apothecary in a box.³ This system continued in the medieval period also in some places, especially in the villages. *Haṁsavimśati* describes the physician proper and the *Bhūtavaidya* going about in the village to treat the patients.⁴ These might be the lay-physicians. The temple physicians and the physicians attached to the main hospital must have treated the patients in their institutional hospitals. Tavernier writes of the physicians in the towns and cities thus:⁵ “It is very true, that in great cities there may be one or two men that have some common receipts, who go every morning, and sit in some known places, to give their remedies to such as enquire for them, whether they may be potions or plasters”. Thus it seems that the physicians in the towns maintained their own hospitals.

1 *Haṁsavimśati*, III-62.

2 *Haṁsavimśati*, III, Verse, 63.

3 Dr.P.Kutumbaiah, *Ancient Indian Medicine*, p.i-iv.

4 *Haṁsavimśati*, I-233; III-62, 63.

5 *Tavernier's Travels in India*, p.231.

THE ETHICS OF THE PROFESSION

The Ancient Indian medical men framed the ethical Code of Conduct to those who enter into this field. These rules of conduct are based on religious beliefs, customs, traditions etc. They were observed in every stage of a physician. Even the choice of the profession of medicine was conditional, as is mentioned already, upon good descent and possession of certain physical, moral and intellectual endowments. The selection of the preceptor too could not be done without considering the ethical conduct. At the time of initiation or the sacred ceremony of *Vidyōpanayana*, the pupil had to take the vow saying that he would observe the religious duties and prescribed commands of the profession, the fulfillment of which was considered sacred. Even after becoming a physician, practising the profession, he was bound to observe and safeguard the ethics of the profession keeping at high level as he commanded high status and respect in the society.

Almost all the ancient medical scholars advocated the system of taking permission from the king to start the profession on the recommendation of his preceptor. They suggested this to prevent the quacks from entering the country, where they might prove a public calamity. Ugrādityācārya was very much particular in stressing on the justice to be done by the physician to his profession by taking thorough training. He says, "Profound study and understanding of the sciences as well as practical skill in administering medicines achieve success in treatment. If either of these is lacking or absent the life of the patient is in doubt or danger. Soon a physician who was equally proficient in theory and practice and was wise, secures the permission of the king or State Authorities to undertake treatment of the sick. When ignorant physician, without adequate knowledge of sciences, tempted by greed or lust begins to treat the sick, he will be sacrificing the lives of the people and becomes liable for punishment by the ruler or Government. Hence the physician should be careful to avoid such

predicaments, leading to punishments.”¹ Susruta, just as a warning to the kings, remarks that owing to the carelessness of the king, the quacks spread in the kingdom. Perhaps, keeping in mind the ancient dharma sastras, Krishnadevaraya too opined that the physicians and the scientists should be given enough to sustain and if they are given more than that, they will neglect the welfare of the people and as a result of it, he says, diseases will spread throughout the country.²

In spite of the care taken by the kings to prevent the quacks, we find evidence to the existence of quacks in the society during this period, In *Hariscandrōpākhyānamu*, we find a Brahmin who earned money by means of conducting ceremonies and from the patients. He used to increase this amount by rotating it to simple and compound interests. These quacks were not particular about their ethical character. They used to wander in the villages in search of cases and if an opportunity comes to their way, they utilized it to satisfy their greed or lust.³

Time and again the medical profession and the patients were warned against these quacks. Caraka says, "These men who, wearing the garb of physicians, seek to gratify afflicted persons like fowlers seeking to capture birds in the woods by having recourse to their nets or springs those men who are unlearned in scriptures, experience, (knowledge of) curative operations, time, measure and place, should be avoided."⁴ "Lōlambarāja who belonged to fourteenth century expressed the similar opinion. He had great belief in the professional ethics and advocated the prohibition of quacks from the society."⁵ He mentioned that they were to be treated as outcasts, and compared a quack to a treacherous wife who is always dangerous to one's life.⁶ *Vaidyāhāsyamu*, a Telugu satirical work on medical practice of later medieval Andhradesa is full of satirical verses on quack physicians and their false and useless drugs and practices.

1 *Bulletin, IJHM*, Vol.III, (4), Oct.1973,p.164.

2 *Amuktamalyada*, IV-243.

3 *Hamsavimsati*, I-240-244; *Harischandropakhyanamu*, II,p.145.

4 CS, III-8.

5 *Sadvaidyajivana*, pp-30, 37.

6 *Ibid*, p.37.

The main principle in the process of treatment is the implicit faith of the patient on the physician, his efficiency and healing touch of his hand. Hence a good physician always tried to be pious, religious and gentle. Ugrādityācārya says, "There is not much harm or danger if the patient loses faith in his wife or children, if the patient loses faith in the physician, there is no hope for the cure of the patient."¹ According to him the physician who undertakes treatment should have the following qualities. "He must be a speaker of truth, a man of courage, endowed with patience, blessed with a lucky hand that has achieved numerous cures, one who has witnessed and also practised notable methods of treatment, one who does not get upset under any adverse circumstances. These are the great noble qualities that a physician entrusted with healing the sick should possess."² In Madiki Singana's work (fourteenth century A.D.) *Sakalanīti Sammatamu*, we find the ethical principles involved in the profession which are on the same lines mentioned in *Kaṭyāṇakāraka* of Ugrādityācārya. Singana quotes a verse from *Pancatantra* which mentions that belief in the physician gives more results and disbelief gives no positive result.³ The work also contains verses which says: "A king appoints a person as a physician who versed in *sastras*, beneficiary to other, versed in every subject of Ayurveda, skilled in cooking and preparing drugs, skilled in service, having good behaviour and descent, full of kindness, should never be tried or impatient. If the king once appoints such a person as a physician, he will be endowed with longlife."⁴ A physician and his qualifications were also given in this work.

Manu Dharmaśāstra, laid down that one should not accept charity from a physician. The physician did not go without remuneration at any time even in the Rg Vedic period. In Rgveda it is mentioned that a physician receives, "horses, cattle and clothing" be means of his healing herbs.⁵ Kautilya treated the medical men as

1 *Bulletin, IIHM*, Vol.III(4), Oct.1973,p.164.

2 *Ibid.*

3 *Sakalanīti Sammatamu*, V-319.

4 *Sakalanīti Sammatamu*, V.317.

5 *Rgveda*, X-97.

workers along with the artisans, musicians, physicians, buffoons, cooks and other workmen". They were to get wages and scales and the penalty for non-payment are stated in the following words: "As much wages as similar persons employed elsewhere usually get or as much as experts shall fix, "Failure to pay wages shall be punished with a fine of 10 times the wages or 6 *panams*".¹ The physicians of the army were paid 2,000 *panams* per annum.² In Medieval Andhradesa, we find that the physicians served the society with humanitarian aspect. They took credit in calling them as '*Parahitas*' and '*Lōkōpakaras*'. The Parahita physicians and their servicing nature are praised in many inscriptions. They set an example in the medical field by treating the patients without taking any remuneration from them. The kings in consideration to their services to the society made village grants to those physicians. The Kaluvaceru grant made by Anitalli to a scholar-physician named Parahitacarya informs us of the pious life led by the physicians of the day as an example.³ Not only this record, but also the other records registering the grants to the physicians mentioned the good characteristics and religious and philosophical attitude of the physicians mentioned. Thus the epigraphical evidence proves the fact that the physicians maintained high standards of ethics. The observation of the religious duties and the fulfilment of the prescribed commands of the profession by these physicians earned them great respect in the society. The maintenance of this ethical standard was taken as a credit and they tried to continue it as a tradition.

The physicians of medieval Andhradesa tried not only to maintain moral standards in their personal life but also to see that the ethics be followed by the people in the society. According to *Karmavipaka* mentioned in Ayurveda, disease is the result of the sinful conduct of a person either in this life or in the previous birth. Though the physicians were very much eager in finding out the causative factors

1 *Arthasastra*, BK, III, ch.13; D.V.Subbareddi, *Glimpses of Health and Medicines in Mauryan Empire*, p.3.

2 *Ibid.*

3 *Andhra Sabhya Parishat Patrika*, Vol.I, pp.93-113.

that led to various diseases old and new, they did not stop mentioning the Karmavipaka just to encourage them to observe good moral principles and to create fear against sinful acts. Some scholars like Srinathapandita and Indrakanthi Vallabhacarya prescribed some propitiatory acts as curative steps, which were beneficial to the Brahmins. Vallabhacarya prescribed in some cases to give away in charity to the Brahmins valuable gifts such as an idol of Nandi or some other deity in gold or silver. The foreign travellers observed this custom prevalent in the society. Tavernier who visited the temples at Bezvada and Mangalagiri writes thus:¹ “when the pilgrim goes to a pagoda, to be cured of any distemper, he brings the figure of the member affected made either in gold, silver or copper according to his quality, which he offers to his God.”

FEES

The Parahita physicians of medieval Andhradesa had taken credit in treating the patients expecting no monetary benefit. Ugradityacarya in this context says, “the physician should not undertake treatment on account of hurt, love or greed; not even friendship, enimity or affection for a kinsman should be the reason for treatment the expectation of earning a reward of fame should not tempt a physician to give treatment. Only one urge and aim i.e., kindness or mercy, with humanitarian feeling should lead the physician to practice the art of healing, the physician should never think that the practice of medicine yields no benefits to him. Sometimes he may win fame or friendship; there is bound to be atleast the benefit of practical experience.²” Śrīnivāsārya of seventeenth century, the author of *Cikitsātilaka* also expressed the same opinion.³

1 *Tavernier's Travels in India*, p.202.

2 *Bulletin IIHM*, Vol.III(4),p.164.

3 *Cikitsātilaka*, verse 19,p.3.

Pānakālarāya, the author of *Nētradorpaṇam* and an eye specialist of sixteenth century A.D. mentions that the science of medicine is intended for the "*Parōpakāra*" (service to others). He gives the following evidences as the authorities in support of his statement:¹

"Vedas or the sacred scriptures lay down that this body is meant for service to others. Puranas and sastras and even elders also mention that 'action for dharma should be with great speed and let all people be happy'. The king who maintains medical men in better conditions for the benefit and protection of the people from diseases is meritorious even than the 'God Brahma'."

It indicates the fact that generally the physicians were very much conscious of the ethical principle that they should dedicate their talent for public service, but at the same time they expected the patronage of their profession by the king or feudal lords or religious institutions as they need money not only for the maintenance of their family, but also for the preparation of drugs. But we cannot state that every physician in the country received patronage.. There were some physicians who maintained their profession individually. Such physicians charged the patients for the treatment as it needed the herbs, the assistant, etc. Bhāvamiśra of 16th century says, "Money is one of the most essential things to everybody including the patient and the physician. One cannot get medicine without purchasing the herbs with money. Hence money becomes the part and parcel of *cikitsa* (treatment)."² Lōlambarāja (14th c.) says. A "physician should divide his medicines into five units out of which one unit should be utilized for the treatment of the poor, I unit for his friends (or near and dear), I unit for sale to meet the expenditure of the collection of medicinal goods and preparation of drugs, I unit to set apart for Sridhanwantari (to give freely to another physician who comes in need for the use of a patient) and the last unit to utilize for his ownself as a remuneration to his medical services."³ Thus some scholars

1 *Bulletin IIHM, op.cit.*

2 *Bhāvaprakāśa* Part-I, V-101.

3 *Sadvaidyajīvana*, V.135, p.28.

opined that fees should be collected from the maintenance of medical profession whereas some scholars like Śrīnivāsārya (17th c.) strongly opposed it. Srinivasarya, in his work *Cikitsātilaka* expresses his opinion thus: "Taking money as a remuneration for the treatment is equal to an act of selling a precious stone (*ratna*) for the husk of paddy."¹ Such scholars followed the foot-steps of *parahita* physicians and served the people without expecting any remuneration. They tried to get patronage of the rich people by exhibiting their literary talent and took credit in introducing themselves as poets. Anyway, free medical aid was neither compulsory nor so common in the society. There were some physicians who maintained their families on their profession. They too were expected to follow certain ethics. Lolam-baraja says in a verse thus : "A physician who is evil-minded, short-tempered, dirty in dressing, who lost his wife in his middle age and who fixes his fees before starting the treatment, should be discarded."² But we do not know how they charged the fees for the treatment. Perhaps it might be according to the drugs used. As the herbal treatment costs less, it might be cheaper whereas the treatment with *rasa* drugs must be more costlier as these medicines require more money as well as much labour. The charge of fees must have varied in accordance with the nature or severity of the disease also. In *Palnaticaritra*, of Srinatha, we find a reference that Balachandra paid 700 *madas* to the wounded lady to get the treatment. Her case was not so severe and it was not a disease. She was hurt by the hit of a top (*bon-garamu*) and her leg was cut slightly by this accident. The money she received from the offender seems to be very high. It is doubtful that such a minor wound to be cured required so much money. Anyway this reference is not helpful to know the exact fees to be paid to the physician.

1 *Sadvidyājīvana*, V.20.

2 *Ibid*, vv-142,143,p.30

We find another reference in the account of Tavernier to the fees given to an European surgeon by Abul Hasan Qutub shah and his mother. The surgeon received 800 *pagodas* from the king for doing venesection at four places under the tongue. This reference too is not so useful since it was a royal remuneration and the surgeon too was a foreigner. Except these references, we do not find any others either in indigenous or foreign sources to the exact fees charged by the physicians. That's why we cannot state whether the fees charged by the physicians was high or reasonable. But the physicians were advised not to trouble the patients for money. In the same manner, it is laid down in the medical texts that the patients should not accept charity from a physician. If the person who receives treatment and does not give anything in gratitude to the physician, will lose all the merit gained thereto.¹ The physicians of medieval Andhradesa followed the ethical principles laid down in the *dharmaśāstras* to a great extent. But it seems that there were also some physicians who troubled the people for money. Anyway, it is but natural that all the people at all times cannot be expected as strict followers of honesty and dharma. There are, in all times and in all corners of the world, some people becoming too greedy and selfish. Especially, the greed for money degrades a person to wretchedness. In *Hariscandropākhyānam of Gaurana*, we find a description of a greedy purohit-physician who used to earn money by grabbing some money from the patients and yet by many other means and gives it for simple as well as compound interests.² But it seems that the number of such physicians was very less, as we do not find any such other references. On the other hand, the literary as well as the epigraphical evidences prove that they continued their profession mainly for the public service and were called *parahitas* and *lōkōpakaras*. The fact that they escaped the critical glance of Vemana also supports this view. Vemana blessed the *lōkōpakaras* (as he calls them) who served the patients and wished them prosperity in this world and salvation at the end.³

1 *Bhāvaprakāśa*, Part-I, V-38 & 39.

2 *Hariscandropākhyānam*, II-145.

3 *Vemana Padyālu*, TTD. Pub., III-38.

CHAPTER - IV

Availability of the Drug-Substances

Andhradesa was famous for its rich and resourceful *materia medica* from the earliest times. Many physicians and traders were attracted by the valuable and rare medicinal substances available in this region. In the foreign lands also, South Indian *materia medica* was regarded in high esteem. Hippocrates praised the *materia medica* of India in his medical lexicon as early as fifth century A.D. Nikitin, the Russian traveller who visited the Vijayanagar kingdom described the trade that was going on in various herbs and drugs. Garcia D'Orta visited many places in South India and wrote a book on the *materia medica* of those places. The accounts of Paes, Nuniz, Linschoten and Tavernier are very useful in tracing the details of the *materia medica* of the day. In those days the classical physicians followed the medical texts, especially, the *dravyagūṇa nighaṇṭus* in preparing the drugs. The contemporary medical texts, medical lexicons and the general literary works give us an idea of the knowledge that they had about the medicinal virtues of herbs and minerals. These sources reveal the fact that though the *materia medica* of this period was traditional at large, the multiple medicinal value of many of the herbs and minerals was discovered and some new herbs of foreign origin were introduced during this period.

It seems that *Guṇapāṭhamu*, *Madanapālanighaṇṭu*, *Dhanwantarīya nighaṇṭu*, *Rājanighaṇṭu* and *Bhāvaprakāśanighaṇṭu* were the books on *materia medica* referred and followed by the physicians of this period. The medicinal substances that were used can be divided into three

categories i.e. vegetable products, animal products and the products pertaining to the earth.

The vegetable products are root, bark, pith, exudation, stalk, sprout, cinders, thorns, ashes, leaves, juice, milk, oil, flowers, fruit, bulbous root, shoots and various kinds of vegetables. Ginger, pepper, cloves, saffron, camphor, sandal-wood, asafoeticum, longpepper, poppy-seeds gumgual, china camphor, tamarind, the cashew nut, toddy, acaciaarabica's leaves, bark, root and fruits the sacred basil, grapes, coriander, mustard seeds, castor seeds, cummin seeds, *nēpāla*, lemon, orange, banana, jaggery, sugar, *musāmbaramu*, fenugreek, the thornapple, *jillēdu* (*calitropisgigantia*), *velaga* (the wood-apple), groundnuts, *sunāmukhi*, etc., were the most popular medical substances that were grown in many parts of the country. In *Panditārādhyacaritramu*, we find a reference to the various fruits cultivated in this region such as mangoes, pomegranates, jack-fruits, oranges, big lemons, bananas, grapes, *mādīphala*, *panasa*, dates, *nērēdu* (*myrtus cyminum*), *rēgu* (*zizyphus jujuba*), the cashew-nut, lemon, *nulivinda*, *hintālamu*, *moṛavi*, pumpkins, *gauva*, *jilibili*, *bandaru*, *mārēdu ciṭimuṭi*, etc.¹ In *Bhīmēśwara Purāṇamu* and *Keyūrabāhucaritra*, we find the description of the cultivation of various herbs like *pippaḷlu* (long pepper), the green vegetables, turmeric, onions and various other bulbous roots.² Mangoes, *mādīphala* and *kammarēṇu* which were widely used in the preparation of drugs were cultivated in Warangal area.³ Myrobalan a kind of dried fruit occupied a great place in the indigenous materia medica. There is a saying in Sanskrit "*Daśamātā haritaki*", which means *haritaki*, the myrobalan is equal to ten mothers. It was also used for dying purposes and was available not only in the Coramandel, but in the west coast also.⁴

Though all the leaves, roots, flowers, etc. were considered to have medicinal value, some leaves and herbs were regarded as having

1 *Panditaradhyacaritramu*, Parvataprakaranamu, pp.357-58.

2 *Bhimeswarapurāṇamu*, II-56; *Keyurabahucaritra*, Part I.

3 *A Corpus of Inscriptions in the Telangana Districts*, I, p.35.

4 *E I*, VI-p.232; Barbosa, I-p.188-89.

celestial nature. The bunches of *Nāgavalli* (betel) and the plant *tulasi* (sacred basil) are believed to have emerged from the ocean of milk while churning by the Gods and Giants. Srinatha mentions in *Kasikhandamu* that the special taste of the betel is thus justifiable due to its association with nectar.¹ It is an usual but noteworthy practice among the Hindus to worship Gods with various herbs especially at the festive occasions like Vinayakacaviti, Kartikapurnima, Sankranti, etc. In *Haravilasamu*, the same poet describes that Siva is worshipped with flowers and sprouts of the *campaka*, *dattura*, *karavira*, *kusesaya*, *mālati*, *karṇikāra*, *kadamba*, *vakula*, *utpala*, *mallika*, *śatapatra*, *sindhuvāra*, *kimśuka*, *asōka*, *punnāga*, *nāgakēsara*, *kṣudra*, *mādhavi*, *pātālabilva*, *mandāra*, *drōṇasrambha*, *parṇidamana*, *cūtapallava*, *darbha*, *tulasi*, *sandyāvarta*, *dēvadāru*, *kāncana* and *dūrva*.²

In *Navanāthacaritra*³ can be found a list of leaves and sprouts available in the forests. They are: *jambīra*, *panasa*, *pātala*, *pāribhḍra*, *hintāla*, *tāla*, *tamāla*, *candana*, *sindhuvāra*, *sāla*, *kahleya*, *kēsara*, *suradāru*, *nāgakēsara*, *vaṭa*, *nāranga*, *likucapūga*, *punnāga*, *karpūra*, *kharjūra*, *mandāra*, *kētaka*, *āmalaka*, *kadamba*, *tinduka*, *kadalika* and *tintriṇi*.

The agricultural and dairy products also were used as a diet of regimen and as drug substances. Describing the area between Hospet and Ponugonda, Paes writes thus: "These dominions are very well-cultivated and very fertile, and are provided with qualities of cattle, such as cows, buffaloes, and sheep, also of birds, both those belonging to the hills and those reared at home, and this in greater abundance than in our tracts. The land has plenty of rice and Indian corn, grains, beans, and other kinds of crops which are not sown in parts, also an infinity of cotton. Of the grains there is a great quantity."⁴

Various kinds of oils, ginger, sugar areco-nut, palm-leaves were the other agricultural products which were cultivated and were consumed

1 *Haravilasamu*, VI-240.

2 *Kasikhandamu*, IV-240.

3 *Navanāthacaritra*, p.14.

4 *The Vijayanagara Empire*, p.19.

in the medicines. Paes writes, "the oil which it produces comes from seeds sown and afterwards reaped, and they obtain it by means of medicines which they make." *Sukasaptati* gives a list of oils, that were prepared in the oil monger's house.¹ They included both edible and medicinal oils: *vellagisenūne*, *kurunūne*, *verrinūne*, *nullanūne*, *ipppanūne*, *kusumanūne*, *gānuganūne*, *dunduganūne*, *kobbārinūne*, *poganūne*, *tagiresanūne*, etc.

Sugar and jaggery were produced in the country in large quantity.² The inscriptions and the contemporary literature very often refer to the sugarcane mills. Barbosa and Varthema³ also described the variety of sugar-cane, palm-sugar or jaggery made from the palm-sap also was in great demand in the country.⁴ Medical works of the period refer to all the above kinds of sugar in addition to that prepared with *ippa* flowers. Srinathapandita described their medicinal value in his work *Parahitasamhita*.⁵

Toddy drawn from coconut and palm sap was in great demand in the country. Literary sources testify to the medicinal usage of liquors by the people during this period. Many kinds of *asvas* and *aristas* were prepared not only by physicians but also by women at home.⁶ In medical works also we find references to various kinds of liquors prepared and used medicinally in those days.⁷

During this period, the medicinal value of some new plants and their products were discovered and utilized. Some merchants and the physicians were very keen in collecting the new herbs. Tippaya Setti and his brother Cami Cetti who visited many places on their commercial voyages collected many herbs and distributed them through out the country which could be found available them in the janapada

1 *Sri Krsnarayanadhra Sahitya Vijnana Sarwaswamu*, p.385

2 *Amukta*, II-70.

3 Varthema, p.49.

4 Barbosa, I, 185.

5 *Parahitasamhita*, Sadharanakanda, V.R.Sartulu & Sons, Madras, 1952, pp.147-148.

6 *Rukmangada Caritra*, III-227.

7 *Parahitasamhita*, op.cit., pp.156-160.

shops of this region. Especially, Avaci Tippaya Setti seems to have greater interest in collecting various medicinal substances of all kinds. He was called 'Kiskindhacala Kridavinoda', one who took pleasure in playing on the Kiskindhacala. It indicates his interest in the search of the substances available on the hill tracts. On the hills of Kondavidu, Kondapalli, Nuzividu, the forests of Nallamalai and various other regions of Andhradesa, the medicinal substances were available in great abundance. Especially Srisailam area was attracted by the physicians and business people of various regions on account of its rich forest produce. Many rare medicinal substances were available here. That's why the patients who were suffering with chronic diseases were advised to visit this place.¹

ANIMAL PRODUCTS

Meat, blood, fat, liver, bones, urine, hair, secretions, bile, marrow, semen, horns, nails, bristles, hoops, and the bright pigment called 'gorocana' of various animals were the animal products used as drugs. Civet and bright pigment of various animals such as cow, goat, monkey, etc. were the most popular and widely used animal substances. Ugrādityācārya condemned the sacrifice of animals' life on the pretext of treatment. He propagated the uselessness of "flesh diet" and convinced the doctors who had assembled in the court of Amoghavarsa. He proved in his work *Kaṭyānakāraka* that animal substances though useful in treatment are not absolutely essential and could be discarded by using in their place, many more powerful herbs as substitutes.² But it does not seem that all the physicians discarded the animal substances in the preparation of drugs. On the otherhand, we find that they explained the uses of meat and other animal substances as diet and medicine.³ Writing about the Brahmins in the

1 *Bhavaprakasa*, II, p. 878.

2 *Bulletin, IHM*, Vol. II(4), 1964, p. 219.

3 *Parahitasamhita*, Sadharanakanda, pp. 224-234.

Vijayanagara Empire, Linschoten writes,¹ “ they eate not anything that hath life, but feed themselves with herbes and Rice, neither yet when they are sick will for anything be let bloud, but heale themselves by herbs and ointment, and by rubbing their bodies with sandals and such like sweet-woods.” Even though Brahmins did not directly involve in the collection of animal substances or in eating the meat they used the animal substances like civet, *gorocana*, horns, etc. in medicines. Linschoten refers to the extensive use of these substances in medicines. He mentions that there is much adulteration in the business of Civet and to the uses of Rhinoceroties “whose horn, teeth, blood, claws and whatever he has both without and within his body is good against poison.”²

MINERAL PRODUCTS

Gold, silver, copperdust, iron dust, lead, tin, mercury, black-sulphur, the white sulphur, alumn, magnetic iron ore, bitumen, calcined lime and various other stones available on the hill tracts of this region were used as objects in preparing drugs.³ These drugs were placed in high esteem because they would not perish or spoil so easily and quickly, whereas the herbal drugs would spoil or lose their power in the lapse of six or seven months of time. The drugs prepared by the mineral substances could be empowered or become more effective if preserved for some more time. Besides this, the medicines made out of mineral substance were proved as being capable of curing the dangerous diseases like contagious, inherited and venereal.

1 Puranas, *Pilgrims*, X, p. 256.

2 *Bulletin, IHM*, 1965, III(3), p.181.

3 *Parahitasamhita*, Sadharanakanda, pp.164-174.

COLLECTION

The Moon is considered to be the God of Herbs having influence on the efficacy of the herbs. Everywhere we find Lord Siva's image with crescent on the left side of his head. Lord Siva is also known as Vaidyanatha and his wearing the Moon, the Lord of Herbs, on his head indicates the meaningful union. In *Āmuktamāyada*, the Moon is mentioned as the sovereign over the drugs.¹ In *Kāśīkhaṇḍamu*,² it is mentioned that when the Vindhya mountains grew abundantly and obstructed the path of the Sun, and the Moon, etc., the herbs lost their efficacy and splendour. *Hamsaviṃśati* describes the collection of certain herbs on the lunar eclipse day.³ Likewise, *Bhāskararāmāyaṇa* mentions some herbs which are powerful during the day and which become impotent during the night.⁴ The scholars in medicine also seem to have accepted these ideas. They gave guidelines for the collection of the herbs in consideration with the movement of the Sun and the Moon. They observed that the ingredient qualities of herbal substances depended on the nature of the soil where they grew and the season in which they were produced.⁵

Generally the country-physicians collected the drug substances from the surrounding places.⁶ Some physicians who were engaged in temple service cultivated some of the herbal substances such as betel, areca, *pippaḷḷu*, *māḍīphala*, lime, coconut and various other flowers, leaves and roots in the temple gardens. The temple garden might have helped to meet the needs of the temple-hospitals. Paes refers to the temple which, "have many buildings and gardens with many trees which the Brahmins cultivate their vegetables and the other herbs that they eat."⁷ The literary works of the period also refer to the existence

1 *Amukta*, II-63.

2 *Kasikhandamu*, I.122.

3 *Hamsavimsati*, V-314.

4 *Bhaskararamayana*, Yudhakanda, V-1098.

5 *Parahitasamhita*, Sadharanakanda, pp.313-314.

6 *Paramayogi vilasamu*, p.450.

7 *The Vijayanagara Empire*, p.42.

of the temple gardens having a great variety of plants and trees. In *Navanāthacaritra*,¹ we find a list of herbs available at Eleswaram such as *panasa*, *campaka*, *pāribhadra*, *rasāla*, *sālatinduka*, *gandhasāla*, *hinta*, *tāla*, *kharjūra*, *kētaka*, *pīcumanda*, *mandāra*, *alagaru*, *kātakapunnāga*, *nāgakēśara*, *nāranga* and *pūga*. Indrakila mountain, the seat of Goddess Kanakadurga, is mentioned as abounded in the following herbs: *rasāla*, *tamāla*, *tāla*, *nīpa*, *arjuna*, *lodia*, *tinduka*, *āmalaka*, *panasa*, *āmra*, *pāṭali*, *sarpa*, *kuraṇṭaka*, *candana*, *nimba*, *kētaki*, *bhūrja*, *kapiṭha* and *pūga*.²

Generally the commonfolk used the vegetable substances to prepare their medicines to cure their petty diseases. They were able to identify and collect these substances from around their surroundings. Sometimes they used the animal substances also of which they either collected themselves or purchased either from the people belonging to a certain community or in the apothecary shops.

Vatsyayana³ lays down that it is the duty of the house wife to collect and preserve the drug substances, including the rare ones in a secret place away from the sight of the children. She is expected to collect the *snēhadravys* like ghee, oil, *vasa*, *majja*, etc., the fragrant substances like civet, sandal-wood etc., the hot and pungent things like dry ginger, long pepper, pepper, etc., the *yantras*, the drugs like *daśamūla*, etc. and other rare substances and should hide them in a secret place. Tavernier,⁴ the French traveller, describes the procedure of collection of herbs by the common people thus, "As for the common people, after the rains, are fallen and that it is time to gather, herbs, you shall see every morning the good women of the town going into the fields, to gather such simples which they know to be proper for such diseases as reign in the family. Thus it seems that the common people, especially the women folk used to collect the necessary herbal substances which were available in their surroundings and in a particular season

1 *Navanathacaritra*, p.293.

2 *Haravilasamu*, VII-3.

3 *Kamasutras*, 4-1-28;

4 Tavernier, *Travels in India*, p. 231.

when they were available. They might have preserved them for the other seasons.

The literary sources mention a separate community of people known as "*mandulavāṇḍlu*".¹ The "*kōyas*" might have been considered as the *mandulavāṇḍlu* as they are the people who live on the selling of the *mandulu* (medicines) till now. Next the Cencus were famous as the collectors of the forest products. They used to present some of the valuable herbs to the kings. They largely collected the animal substances such as civet, the horns, the teeth, bones and skin of various animals, the vegetable substances such as *cārapappu*, *mum-tamāmiḍi*, etc. and honey.² The Erukala and Cencu women used to sell various kinds of medicines including some roots which were believed to have had the power of dumbing a person and diverting the mind of a person.³ These women used to tell the buyers that the herbs or roots were brought by their husbands from the forests or hilltracks to stress their point that they were not adulterated ones.⁴ The women of '*mandula*' community sold their herbs and drugs both in the bazzars and in the santes or fairs⁵ which were held regularly on fixed days (Fridays, according to Paes). John Huighen Van Linschoten writing about the Brahmins in coastal area says, "there are many Bramenes, which commonly doe maintayne themselves withselling spices and other Apothecarieware, but it is not so cleane as cleane as others, but full of garbish and dust."⁶ It indicates the fact that Brahmins also were engaged in the selling of drug substances.

Anyway, the collection of herbal substances was not a problem in those days. The kings, the feudal lords and the common people also made grants to the general medical centres such as the temples and the *mathas*. The kings took care to maintain the gardens throughout the country. For the supervision of these gardens, they appointed

1 *Kukkuteswarasatakamu*, V

2 *Andhrula Sanghika Caritra*, p.252.

3 *Sukasaptati*, I-97-98.

4 *Sukasaptati*, I-97-98.

5 *Kridabhiramamu*, V.77-81.

6 Linschoten, Purhas, *His Pilgrims*, X-p.256.

Vanapālas or the Garden Supervisors. Some gardens were dedicated to the society by the people for the merit of their elders. Those gardens were meant for all the needy and the poor without any discrimination of caste or creed, young or old. Anybody who tried to utilise them for their ownsake and to obstruct anyothers was regarded as a great sinner.¹ The contemporary literary works also inform us that the kings as well as the people showed keen interest in the maintenance of gardens. From the enormous references in these works such as *Vasucaritra*, we come to know that their gardens consisted of a variety of plants which could be used as herbs. Rāmarāja Bhūṣana, the author of *Vasucaritra*, described the medicinal value of many of the plants, their leaves and flowers.²

Tavernier refers to the availability of some of the medicinal stones in this region and describes the procedure of their collection, thus: "Bezoar comes from a Province of the kingdom of Golconda toward the north east, It is found among the ordure in the paunch of a wild goat that brouzes upon a certain tree, the name whereof I have forgot. This shrub bears little buds, round about which and the tops of the boughs, the bezoar engenders in the man of the goat. It is shaped according to the form of the buds or tops of the branches which the goats eat: which is the reason there are so many shapes of bezoar stones. The natives, by feeling the belly of the goat, know how many stones she has within, and sell the goat according to the quantity." He referred also to the adulteration committed by the traders trading in bezoar. He narrates that in the east coast bezoars bred in cows were extensively available of which the Portuguese mostly favoured and kept always with them as "their guard for fear of being poisoned."³ He described another stone known as "the Porcupine stone, which that creature is said to carry in its head and is more precious than bezoar against poison."⁴

1 *Andhra Sarswaswamu*, I(5), p. 186.

2 *Vasucaritra*, III-146 to 149.

3 Tavernier. pp. 368-69.

4 Tavernier, p.370.

About the serpent stone, he says: "There is the serpent-stone not to be forgotten, about the bigness of a double and some are almost oval, thick in the middle and thin about the sides. The Indians report that it is bred in the head of certain serpents. But, I rather take it to be stone of the idolaters' priests, and that the stone is rather a composition of certain drugs. Whatever it be, it is of excellent virtue to drive any person out of those that are bit by venomous creature." John Fryer also refers to the uses and popularity of 'Goa Stones' in various diseases.¹

Mineral substances like iron, gold, sulphur, etc., were available in abundance in the country as there were many mines existed in the country. According to a legend, the city of Vijayanagara was founded at a place where it was revealed in a vision that there was a hidden treasure. Gribble observes that in the whole of the Deccan, from Mysore upto northern limits of the Hyderabad, there were valleys which were rich and fertile and throughout the whole extent of which, from north to south saw a belt of gold bearing quartz which must have been extensively worked.² Gold was used in the form of dust in medicines. This kind of gold-dust was imported from Jalanogi or Palanbang, situated in the island of Sumatra.³

Another metal that was used in drugs is iron. It seems that the iron mines in the empire was sufficient to meet the local needs and the excess was exported to the other countries. Iron ore was taken out from the mines and was made into iron by melting it.⁴ Iron mines were largely found in the Palnadu area. The Mogalutla grant of Ganapamba refers to a big hill consisting of iron mines.⁵ Another inscription from Cinadasapalle (Cuddapa district) refers to an iron mine as which was its border on the north-east of the village.⁶ Black-iron which was known as *tiksnaloha* or *krsnaloha* was used in medicines to check the

1 *Bulletin*, Vol.II, No.4, Oct.1964, pp.241-250.

2 *A History of the Deccan*, I, p.187.

3 *Haravilasamu*, I-28, *Reddi Sancika*, p.181.

4 *Simhasana Dwatmsika*, I, p.78.

5 *E.A.* IV, pp. 93-102.

6 *Inscriptions of Andhra Pradesh*, Cuddapah Dist.II, p.17No.12

aggrandisement of the tridosas and to kill the germs in the human body. Iron was purified and used after calcination in medicines. Vemana refers to the uses of ashes of calcined iron in many of his verses. He also refers to the medicinal uses of *kantaloha* (the load-stone or magnet).¹

Another important substance that was mined in the country was sulphur. It was placed in high esteem among the mineral substances. With regard to the production of sulphur, the country was self-sufficient. It was largely found around Srisailam. This place was a famous centre of Rasasiddha school of Medicine. Around this place, it was said in *Rasaratnakara*, many rare drug substances such as the Vanaspati, mica, iron, *kantamu* (a kind of stone) Quartz, bitumen, yellow sulphuret of arsenic and red sulphuret of arsenic were available.²

Almost all the drug substances which the physicians prescribed were available in the village grocery shops also. According to *Ham-savimsati*, a contemporary literary work, the drug substances available in the *janapada* shops were as follows:

<i>jājikāyala</i>	-	nutmeg
<i>rasna</i>	-	A plant called smilax china or Alpinia galana
<i>haridra</i>	-	wood-saffron
<i>jāpatri</i>	-	mace
<i>nagara</i>	-	dried ginger
<i>gandhaka</i>	-	sulphur
<i>nābhi</i>	-	aconitum ferox
<i>rasamu</i>	-	quick silver
<i>atimadhura</i>	-	liquorice; Glycyrrhizaglabra
<i>tuttha</i>	-	vitriol; sulphate of Copper
<i>abhrāka</i>	-	mica

1 *Verses of Vemana*, No.1057.

2 K.V.Sarma, *Ayurveda Itihasamu*, Part II, p.

<i>aila</i>	- a root used as a medicine in-dropsies
<i>śilājittu</i>	- bitumen
<i>murudarusingu</i>	- the wood of Deodar
<i>hinguva</i>	- asafoetida
<i>annabhēdi</i>	- green vitriol, sulphate of iron
<i>vasa</i>	- sweetmeg; acorus calamus
<i>akkalakarya</i>	- a medicinal root, anacydus Pyrethrum
<i>pancalavana</i>	- the five salts
<i>cavyamulu</i>	- the wood of long-pepper plant
<i>dōlamu</i>	- a certain decoction, a medicine used by the newly delivered women
<i>maṇiśila</i>	- a red sulphate of arsenic
<i>pippaḷḷu</i>	- long-pepper
<i>kōṣṭuvu</i>	- a herb taken from a plant named coitus Arabicus
<i>pippalimulamul</i>	- the roots of long-pepper plants
<i>haridaḷa</i>	- tulasi-leaves of basil plant
<i>nāgakēsaramulu</i>	- the small tree termed Mesua-fercea
<i>ingilikamu</i>	- vermilion
<i>sadepavellu</i>	- the roots of Amethum pan-norum
<i>dhānyakamulu</i>	- grains
<i>kaṭukarōhiṇi</i>	- black hellebore, a purging medicine
<i>paṭika</i>	- alum stone
<i>jangalapacca</i>	- artificial emerald
<i>karpaṭi</i>	- a kind of collysium prepared from saffron
<i>garavi</i>	- a kind of herb, Balanites Ror-burghit
<i>rēṇukamu</i>	- a sort of cucumber (nugudosa)

<i>ativasa</i>	-	aconitum Heterophyllum or the great sweet flag
<i>tālakamu</i>	-	Yellow sulphate of arsenic
<i>māmsi</i>	-	meat
<i>nakhamu</i>	-	nail
<i>nēpālamu</i>	-	coral plant or its herb
<i>kṣāra</i>	-	caustics
<i>pāṣaṇamulu</i>	-	poisons in the form of stones
<i>abhrakamulaidu</i>	-	the five kinds of mica
<i>granthitagaramu</i>	-	the flowering plant named whorl flowered Ruellia, Ruel- lia strepens
<i>Yavanikadwayamu</i>	-	the two kinds of oman, Bishops weed ; sison ammi
<i>kaccūramulu</i>	-	a herb of a plant called Zedoary
<i>marāṭi moggalu</i>	-	a certain drug
<i>kulutta kusumamulu</i>	-	the flowers of horsegram
<i>kunduruṣkamulu</i>	-	a herb from the tree known as olibanum
<i>ganṭubarangi</i>	-	siphonanthusIndica
<i>kankuṣṭamu</i>	-	madder, a plant used in medicine and in dyeing
<i>menti</i>	-	fenugreek
<i>manjiṣṭamu</i>	-	madder, a plant used in medicine and in dyeing
<i>mrānipasupu</i>	-	turmeric
<i>viṣakanṭakālu</i>	-	a herb from the nux vomica tree
<i>āmlavētasamu</i>	-	the leaves of tamrind tree
<i>nirucinacali</i>	-	a kind of green vegetable
<i>pulicinacali</i>	-	yellow wood solred; oxalls cornica
<i>jīrakamu</i>	-	cummin cyrum
<i>nallajīlakarṇa</i>	-	black cummin seeds
<i>puṣkaramulu</i>	-	root of a lotus plant which
<i>kāmpilyamu</i>	-	Rottera tinctovia

<i>samudra phēnam</i>	-	opium
<i>dhatakusunamu</i>	-	the flowers of a tree called Cristea tomentora
<i>sasuvulu</i>	-	mustard seeds
<i>uppalulu</i>	-	a salt marsh
<i>gaja pippali</i>	-	long pepper
<i>kākamāci</i>	-	Crow's bane, the coccubus in- dicus
<i>sthānēyakamu</i>	-	a sort of perfume
<i>citramūla</i>	-	the herb of a plant called Ceylon leadwort
<i>gōrōcanamu</i>	-	ox-gall
<i>kapōtarakṣya, sailā, sauvira</i>	-	collyriums known as kapota
<i>rasa mukhanjanamulu</i>	-	tarkasya, saila, samvira, rasa, mercury, etc
<i>veligāramu</i>	-	borax

TRADE IN THE MATERIA MEDICA

During medieval period, the *materia medica* of Andhradesa became well known to the world because of the brisk trade that was existed in medicinal drugs. The rich and valuable *materia medica* of this region attracted the attention of the foreign physicians also. Many European travellers and physicians came to South India with a purpose to collect the rare medicinal plants and introduced them in their countries. Though Andhradesa was self sufficient to some extent with its rich gardens, forests and mines for the supply of medicinal substances, yet the country was in need of certain foreign articles to meet the demands of the classical pharmacologists of the period. As a result of it, some new herbs were added to the indigenous *materia medica*.

EXPORTS

Many medicinal substances which were in great demand in foreign lands and neighbouring countries were exported from Andhra region.

Pepper, ginger, some medicinal plants and their products, mineral products and precious stones were the articles which the traders dealt with. Pepper was produced both for domestic use and foreign export. Especially the pepper of black variety was in great demand both within and outside the country. Before the entry of chillies in the country only the pepper was largely used for dressing their food and in the preparation of drugs. The merchants bought pepper from the farmers when it was ripe and sold to foreign ships when they passed by".¹ Ginger was available in abundance in the country in two broad varieties i.e., the green variety and the dried one. These two varieties of ginger occupied a significant place among the medical substances. It was grown in large quantities in the coastal area and was exported to the other places such as Persia and Yemen.²

The animal substances such as musk, civet, ox-gall, the horns of antelope, etc., were taken to the South East Asian and European countries. It seems that iron produced in the country was sufficient to the local needs and the remaining was exported to the foreign lands like Ormuz. It was exported to the Dutch colonies in the South Asian countries from Masulipatam port. About 96,000 pounds of iron and 20,000 pieces of steel were sent to Jakarta in 1629 from this port town. The Andhra merchants used to send large amounts of iron, and steel to Achin.³

IMPORTS

Among the different raw products that imported were cloves cardamom, and cinnanon which came from Sumatra, Moluccus and Ceylon. They were in large demand on account of their better quality as compared with those produced in the country.⁴ Malacca, Java,

1 T.V.Mahalingam, *Administration and Social life Under Vijayanagara*, pt.II, p.148; Reference from Mahuan, Account, JRAS, 1896, p.344.

2 Barbosa, I, p.195.

3 Om Prakash, *The Dutch Factories in India, 1617-1623*, Delhi, 1984, pp.239-251.

4 Vascoda Gama, *The first Voyage*, p.77; Major India, pp.7-8.

Borneo, China and Bengal exported to the Coramandel in Moorish ships many kinds of spices and drugs among which were aloewood, camphor, frankincense, pepper, etc.¹ Borneo and Sumatra supplied a good part of the camphor needed in the Vijayanagara empire. Japanese and Chinese camphor was brought by the Dutch to Masulipatam.² It was in great demand in this region as it was used not only as a drug but also as a spice needed in the daily life of the people as rice and water. Barbosa writes that it was worth its weight in silver. They carry it in powder in cane tubes to Narsyngua (Vijayanagar), Malasar and Daqueun.³ "One pound weight of camphor from Borneo is as deared a hundred pounds of China Camphire. But the Indians who know to mix them, adulterate the best as they do all other merchandise, being as dexterous at that work as any people in the world, so that one must be very cunning and have a great deal of experience not to be deceived."⁴

Water-melons, sulphur, sandal-wood and red sandal-wood were brought from Java,⁵ Opium was imported from China⁶ and mustard from Ava.⁷ Batam was one of the centres of the supply of cloves, nutmeg and lead to Masulipatam.⁸ These were in great demand in this region. It was estimated that Masulipatam could sell 100 to 200 *bhars* of cloves and nutmeg a year and make a good profit.⁹ The Dutch merchants brought the following drug substances to Masulipatam either from Holland or from the South-east Asian countries. Cloves, nutmeg, rompen (unripe variety of nutmeg), mace, tortoise horn, alum, sandal-wood, lead, Japanese camphor, Chinese camphor, Ben-

1 Barbosa II, p.125; Danvers, *The Portuguese in India*, I, pp.358-59.

2 Om Prakash, *op.cit.* pp.228-29.

3 Ibid, II, pp. 207-208.

4 Dr.B.C.Law Vol.I, p. 119.

5 Haravilasamu, I-26.

6 Barbosa, I. p.129.

7 Ibid, II, pp.159-61.

8 Om Prakash, *The Dutch Factories in India*, p.94.

9 Om Prakash, *The Dutch Factories in India*, pp.118-119.

zoin, tin, spelter, quick-silver etc.¹

The precious stones also were used as medicinal substances. The good quality of pearls from Pandyan country, from Ceylon, Ormuz, Pegu and Tamraparni were very frequently referred in the contemporary Telugu literary works.² It is noteworthy that they were marketed freely and in large quantity on the roads also. Diamonds were mined in the Kurnool and Anantapur districts and particularly Vajrakarur mines. Ceylon supplied rubies, sapphires, garnets and cats' eyes.³ The works like *Rasaratnasamuccayam* and *Rasapradipika* described the qualities of various precious stones and the methods of calcination, etc. in their works.

Though the mineral objects needed for the preparation of drugs were available within the country, they were imported from other countries also. It was because that the local minerals especially gold and silver were mainly used to meet the needs of coinage and display. Gold and gold dust were imported into the country from Aden, Melinde, Berbera in Africa and from China.⁴ Srinatha in his work *Haravilāsamu*, mentions that gold dust was brought from Jalanogi by Avaci Tipayasetti. Jalanogi is identified as 'Palanbang in Sumatra by the scholars.'⁵ In the universal Gazettee, the trade contacts of the island of Sumatra were explained thus "indigo, Saltpeter, sulphur arsenic, Brezelwood, the bread fruit tree, pepper, cassia, camphor, benzoin, coffee, cotton, cabbage and the silk cotton tree are the produces of Sumatra and the forests contain many valuable species of wood. Tin, iron, copper and lead are found but the mines are not worked so as to render them productive. Gold dust is brought from the interior to the sea-coast where it is bartered from iron tools and other articles of European manufacture".⁶ Here Tipayasetti might have bartered iron articles for gold dust. Silver was imported from the

1 Om Prakash, *The Dutch Factories in India*, pp .228-29.

2 *Manucaritra*, III-80; *Amukta*, IV-45; *Haravilasamu*, I-26.

3 Barbosa, I, pp.202-03.

4 Barbosa, pp.47,56,130, and 202-03.

5 *Reddi Sancika*, p. 181.

6 *Universal Gazette*, p.977; quoted in *Reddi Sancika*, p.181(f).

East.¹ Copper, tin, lead and quick silver and some other minerals were imported from Jedda, Aden, Mecca, etc.²

Though the overseas trade of South India during the medieval period was largely in the hands of the foreign traders, the Andhra traders were also very enterprising and took an important part in it. *Haravilāsamu* of Srinatha gives a graphic description of foreign trade carried on by a Cetti family of Simhavikramapattana(Nellore). It gives us an idea that the Andhra merchants were very enterprising and maintained trade links with foreign lands also. This work informs us that Avaci Tippyaya Cetti and his brother Tirumala Cetti and Samicetti imported valuable articles by both land and sea and supplied them to Harihara of Vijayanagara, Kumaragiri of Kondavidu, Feroz Shah Bahmani and the Gajapati rulers of Orissa. They had imported the goods such as camphor and plants, from the Panjab, Gold dust from Jalanogi(Sumatra) elephants from Ceylon, fine horses from Hurumanji(Ormuz), musk from Goa, pearls from Apaga(sea) musk from Cotnagi(Chantang) and fine silk from China.³

The Cettis settled in foreign countries also for the purpose of trade. Barbosa mentions that the Chetige merchants from the Coromandel were in Malacca.⁴ He describes their keenness in business thus: "The more part of all of the Heathen merchants or Chattis who live throughout India, are natives of this country(Coromandel) and are very cunning in every kind of traffic in goods."⁵ In another place, the same traveller says that their sons, even when they were ten years of age, went about changing coins.⁶ About these merchants Nuniz writes, that they were honest men given to merchandise very acute and of much talent, very good at accounts.⁷

1 Barbosa II, pp. 155-56.

2 *Ibid*, I, pp. 47. 202-03.

3 *Haravilasamu*, I- 26to 28.

4 Barbosa, II, p.177.

5 *Ibid*, pp.125-26.

6 *Ibid*, pp.73.

7 The Vijayanagara Empire, p.165.

The sources prove the fact that the kings who ruled Medieval Andhradesa encouraged the traders who were engaged in Inland and foreign trade. As a result of the encouragement given by the rulers, the Motupalli Port became a cosmopolitan port-town. Many traders from various countries came and settled in Motupalli and maintained their transactions freely. Kakati Ganapati Devi stood as an ideal ruler to his successors who ruled Andhradesa by following liberal policy towards traders. He got an inscription engraved in Motupalli port indicating the state's policy. He not only promised the traders, protection and freedom but also made clear the various taxes to be collected. He followed liberal policy in levying the taxes especially on the drug substances and spices. The Motupalli grant of Ganapati Deva specifically and clearly mentions the taxes on particular things. "Ganapatideva offered to collect the customary duty of 1/30th on all exports and imports, one and 1/2 of *gadya* on each *tola* of sandal, 3/4 and 4/8 on every *gadyanam* worth of country camphor, Chinese camphor and pearls, 1 1/4 and 1/8 *ruka* on every *gadyanam* worth of rose water, ivory, civet, camphor oil, copper, zinc, lead, silk-thread, corals and perfumes 3/4 and 1/8 *ruka* on every *gadyanam* worth of pepper, 5 1/2 *rukas* on every bale of silk and one *gadyanam* and 3 1/4 *ruka* on every lakh of areca-nuts."¹

Almost all the above articles except the silk cloth are herbal substances. These were taxed very less perhaps to encourage the trade in them. Another inscription of Ganapati Deva dated A.D.1228, also is of similar nature. In this record also we find the taxes levied on various drug substances.

The following are the fees levied :

1. Sale on indigo- 2 visalu in a *māḍa*
2. The *āyam* given by native and foreign traders as well as the guild of merchants on piles of areca-nuts. A quarter thousand for a lath of areca nuts.
3. On bundles of betel leaves, one bag leaves for a large Bag(peruka)

4. The *āyalu* given by the traders in vegetables- A quarter for a cart-load in the case of cart- loads of vegetables; in coconuts, māḍphala fruits, Kammarēṇu fruits, mangoes, tamarind, and other spices of fruits a quarter for cart load; on cart loads of vegetables intended for the preparation of pickles-a quarter for a cart load
5. The *ayalu* given by native and foreign traders on heaps of sesamum-on stores of sesamum, wheat, green lentils, paddy cholam and all other species of unhusked grain- one mana for a cart load; on cart-load of oil and ghee- one mana for 10 large bags; the *āyalu* given by the native and foreign traders on heaps of salt- one mana for 10 perukas and on cart loads a māna.
6. The *ayalu* on stores of *gandhya*, a quarter for a *māḍa*; on all *kola-bhāṇḍas* of muster, pepper, honey, *kanuga* oil, and other commodities a quarter for a *māḍa*.
7. The *ayalu* given by dealers in *Gandhya*, dealers in tin, dealers in musara-on tin, on lead and copper a *palam* for a *tulam*
8. The *ayalu* given by traders of all countries of both the native and foreign, on sandal, a *pala* for a *tōla*; On camphor two *chinnas* for a *vis*; on javadi, a *peruka* for a *māḍa*; on musk, 2 *Cinnas* for a 100 *vīsas*.....on coral, a *cinna* for a *vīsa*; on pearls, rosaries, glass-beeds and other precious stones, a *visa* for a *mada*.
9. The *ayalu* given by traders of native and foreign countries- on turmeric, ginger, *kanda*, *penḍlamu* 2 *vīsas* for a *māḍa*.

These inscriptions make us believe that the medicinal goods were in great demand in the country and they were the main objects in the commercial transactions even from the days of Kakatiyas.

After the fall of the Kakatiya empire, trade and commerce came to a stand still and the Motupalli port lost its prominence. It was in the reign of Anavota Reddi, this port was renovated to its past glory. The Reddi Kings Anavota and Komaragiri Reddi tried their best to revive the trade, commerce and cultivation of Andhradesa. Annavota Reddi promissed the traders both local and foreign, to extend protection from all kinds of troubles. He also allowed freedom to traders to go

anywhere according to their convenience.¹ He entrusted the duty of developing the port of Motupalli to his minister Somaya. At the command of his master, Somayamatya declared the details of the facilities and of the tax policy that the state had decided to follow in the form of an inscription. The inscription dated S' 1280 was inscribed in three languages i.e. Telugu, Sanskrit and Tamil. It indicates the fact that traders from various regions had settled in the port town of Motupalli. Again in A.D.1390, Devaraya I granted some other facilities to the traders to encourage the trade through this port.²

The observation of the information coming from various sources reveals the fact that the Rayas of Vijayanagar worked with competence in encouraging the trade and commerce of the country. Krishnadevaraya expresses thus: "A king should improve the harbours of his country and so encouraged its commerce that horses, elephants, precious gems, sandal wood, pearls and other articles are freely imported into his country. He should arrange that the foreign sailors who land in his country on account of storms, illness, and exhaustion are looked after in a manner suitable to their nationalities". We find that he implemented this policy in his statecraft through the writings of foreign travellers. Barbosa writes, "there is a great traffic and an endless number of merchants and wealthy men as well as among the natives of the city who abide therein as amongst those who come Thither from Outside to whom the king allows such freedom that everyman may come and go and live according to his own creed without enquiry whether he is a Christian Jew, Moor or Heathen".

The trade thus developed, due to the encouragement given by the kings and lords resulted in the mutual enrichment of the materia medica between South India and foreign countries. The foreigners had shown greater interest in our drug substances. Linschoten collected many herbs, plants and seeds to give them to his doctor-friend Bernardus Paludanus. Linschoten had written some notes on the

1 *Reddi Sancika*, p.193.

2 *Reddi Sancika*, p.195.

drug-substances used in this area which was later published and read curiously by the Europeans. His work helped in transmitting to Holland and other countries of Europe, the knowledge of the variety of the flora and fauna and the beliefs and medical practices of South India. "*Sea Voyages*", another publication written by him in collaboration with Paludanus reveals the fact that how curious were the Europeans about the knowledge of the Indian herbs and drugs. They observed and discussed many things such as the places they grow, the varieties, the differences in their properties and the various uses of the herbs, the drugs and the precious stones of this place. His description of many plants with minute details has pharmaceutical value and in turn helped the increase of their demand as articles of commerce. Christopher Schweitzer's account helps us to note that Indian ships from Pulicat, Nagapatnam Bhatkal and Trincomale sailed to Jafnapatam with heavy loads. It supports the statement of Srinatha in *Haravilasamu* about the flourishing trade of the Andhra merchants with Jafna.

The merchants who were engaged in foreign trade used to bring new flowers, fruits, roots, plants, etc., to our country for commercial purpose and sometimes to present them to their kings. As a result of it, many things in many forms took place in the usage of the native people. Though the people used them without knowing the merits or demerits of those goods, gradually the native physicians made experiments on them, observed their qualities and added them in the materia medica. Among such things, mention may be made of Opium, chillies, tobacco, china-root, palm-dates, *battai*, *anjūra*, apple, *pudīna*, tea, coffee, custard-apple, guava, roses, etc. The chillies were introduced in India by the Portuguese. Before that, the native people used only pepper to dress their food or in drugs. Rose could not be found in the works written earlier to 14th century. Naraharipandita mentioned it for the first time in his medical lexicon. China-root which was used against venereal diseases during 16th and 17th centuries was brought by the Portuguese from China. All the medical scholars today believe that Bhāvamiśra first introduced this in his work *Bhāvaprakāśa*. But it was Basavarāju that first prescribed it in the

treatment of *meha* diseases.¹ The reference to opium can be seen first in *Śārṅgadhara Saṁhita*. The references with regard to the usage of tobacco can be found in the literary as well as medical works of 17th century. The authors of *Yogarātnākara* and *Cikitsātilaka* who belonged to 17th century described the qualities of apple and its medicinal value. In this way, many new herbs were added to the indigenous materia medica as a result of the foreign trade and the scientific research maintained by the Andhra merchants and medical men respectively.

PHARMACY

The art of making medicines is mentioned as one of the fine arts. In the list of 64 arts given in *Sukranītisara*, there are ten arts pertaining to the pharmacy of indigenous medicine.² Not only the physicians but also the women,³ princes⁴ and the son of ministers⁵ were supposed to be conversant with this art. The simple home remedies were prepared by the housewives themselves and other compound drugs were prepared by the expert physicians utilizing the services of their assistants. In this process, many instruments were used. The place where these operations were conducted was known as *rasaśāla* in the medical tradition. They prepared *Kvathas*, *asavas*, *ariṣṭas*, *arkas*, *cūrṇas*, *ghṛtas*, *tailas*, *lēhyas*, *guṭikas*, *kṣāras*, *lēpas*, *anjanas*, *vartis*, *bhasmas*, *sindhūras*, *rasauśadhas*, etc. In the calcination, purification and such other operations they made use of many instruments. These instruments and their arrangements were well explained by Vallabhācārya in *Vaidyacinītamaṇi*. Among them mention may be made of *ḍōlāyantra*, *svēdanayantra*, *pātānayantra*, *vidyādharyantra*,

¹ *supra*, p. 97.

² A.Laxmipati, *Ayurvedasikṣa- Bharatiya Vijnanam*, I, Madras, 1943, pp.174-5.

³ *Kaṁasūtras*, 4-1-28.

⁴ *DasaKumaraCāritra*, II, *Andhra Sahitya Vijnana Sarvaswamu*, p.412.

⁵ *Sivaratrimahatmyam*, II, *Andhra Sahitya Vijnana Sarvaswamu*, p. 412-13.

vālukāyantra, *pātālayantra* *ḍamarukāyantra*, *drāvākāyantra*, etc are important. In the preparation of mineral and *rasa* medicines, they prepared the *putas* (the hollow prepared to heat metal in the fire). Some of the *putas* are *mahāpuṭa*, *gajapuṭa*, *varāhapuṭa*, *kukkūṭapuṭa*, *kapṭhapuṭa*, *gōvarapuṭa*, etc.

On the study of the contemporary literary works, inscriptions and with the help of the relevant medical texts, we come to know some of the forms of medicines that were prepared and used. *Haṁsaviṁśati* refers to many forms of medicines such as *ghṛtas*, *curnas*, *lēhyas*, *rasāyanas*, *tailas*, *anjanas*, *rasauśadhas*, *bhasmas*, *mantras*, *kaṭṭṭulu*, *kṣāras*, *drāvakas*, *guggulu*, *piṣṭalu*, *decoctions*, *mūlikas*, *gaikarṇikas*, etc. The following are some of the popular forms of medicines of the period:

1. *Churnas or Powders*: *Haṁsaviṁśati*¹ gives a list of useful medicinal *chūrṇas* of the period. They are: "*Pancāgnicūrṇa*, *citrakādicūrṇa*, *baḍabānalacūrṇa*, *maṇimandhacūrṇa*, *mārīcyādicūrṇa*, *tumburucūrṇa*, *karpūrādicūrṇa*, *pancabānacūrṇa*, *bhṛngādicūrṇa* , etc." These *cūrṇas* were prepared by grinding the drug substances in a mortar with a pestle into soft powder and straining through a cloth.
2. *Kaṣāyas or decoctions* : These were prepared by boiling the medical substances with 16 parts of water till the water is reduced to one-fourth. These decoctions were generally administered with the addition of honey, sugar, salt, alkalies, clarified butter, oil, or some medicinal powder. This form of medicine was extensively used.²
3. *Śīta Kaṣāyas or Cold Decoctions*: These were prepared by steeping one part of a drug in six of water for the night and straining the fluid in the morning.
4. *Svarsas* : It was prepared by pounding fresh vegetables in a mortar, expressing the juice and straining it through a cloth. These were used as in the same form or were administered with other medicines.

1 *Haṁsaviṁśati*, I-234

2 *Haṁsaviṁśati*, I-234

5. *Āsavas and ariṣṭas* : These are the medicated spirituous liquids. In *Rukmāṅgadacaritra*,¹ we find a list of *asavas* given as “*Śārkaramu, nūnajamu, gugilusuma ghr̥tajamu, nārikēḷajamu, mādhwijamu, phalamayamu, guaḍatālamayamu*, etc.” Particular fruits were steeped in a syrup made by mixing sugar or jaggery or honey or the three in water and laid aside in earthenware jars for vinous fermentation. The jars were to be sealed and kept aside for 40 days or for a stipulated time. After that they were opened, strained and kept aside for 4 or 5 days and that liquor was known as *āsava*. These *āsavas* were used as drugs or as liquors for medical or general use. In *Parahitasamhita*, the medicinal uses of *madhwāsava, matsyandikāsava, paiṣṭikāsava, nārikēḷasava, mādhwikāsava, drākṣāsava*, etc were explained.² It seems that some physicians did not observe the difference between the *asavas* and the *aristas*. Sarjadhara and Bhavamisra clearly explained the difference between the two. When raw vegetables were used for fermentation, the resulting fluid was called *Asava* and when the decoction of drugs only was added, the fermentation liquor was called an *arista*.
6. *Kalkas, paste* : These are prepared by grinding dry or fresh vegetables on a stone with muller and then making a thin paste, with the addition of water where necessary.
7. *Lēhyas* : To prepare the *lehyas*, decoctions after being strained, are again boiled down to the consistence of a thick paste. In *Hamsaviṃśati*,³ we find a number of popular *lehyas* such as “*cincilyādi lēhya, kṣudraḥhayādilēhya, catuṣṣaṣṭimārīcyādi lēhya, kusumārdrādilēhya, cippilyādilēhya, palvādilēhya, guṇḍalyādi lēhya*, etc.”
8. *Gūḷika or pills* : These are prepared in three ways. Generally these are prepared by reducing a decoction of vegetable substances to thick consistence and then adding some powder for making a pill-mass. In another way, these were prepared with

1 *Rukmāṅgadacaritra*, III-227

2 *Parahitasamhita*, sudharanakanda, pp. 213 - 217.

3 *Hamsaviṃśati*, I -234

the powdered medical substance with the addition of honey or ghee. We find many references in the literary works of this period to this form of medicine which indicates its significance and extensive usage. Not only the herbal drug pills but also the *rasagulikas* were prepared and used. *Hamsaviṃśati*¹ refers to the pills known as *śatabhanji*, *āraḷyādi*, *maṇibhadra* and *tālīśa*.

9. *Ghṛtas* : “*Aśvagandhyādighṛta*, *aiṭṛyagṛta*, *salphulagṛta*, *dūr-vāragṛta*, *pancagavyagṛta*, *ārdhragṛta*, *kadalikandagṛta*, *kaḷyāṇagṛta*, *dandutīyagṛta*, *kusmāṇḍagṛta*, etc.” seem to be some of the popular *ghṛtas* of the period.² These *ghṛtas* were prepared by boiling the drug substances with oils or *ghṛtas* (clarified butter). These were prepared in great varieties and were extensively used in almost all sorts of diseases.
10. *Tailas or Medicated oils* : In *Hamsaviṃśati*,³ we find the mention of some of the *tailas* such as “*Śarapunkhādi taila*, *Laxmīnārāyaṇataila*, *Dhanwantaritaila*, *pancārkataila*, *pāścātyanimbataila*, *viṣamuṣṭitaila*, *kēṭakītaila*, *snēhārkataila*, *vātāntakataila*, etc.” *Basavapurāṇamu*⁴ refers to the use of *Vāyudōṣatailas*. *Pāścātyanimba* might be an orange which was brought from Batavia. Later it was popularly known as ‘*battayi*’ in Telugu. In preparing these *tailas*, usually sesame oil was used. Possession of the qualities of the drug substances by the oils was known as *tailapāka*. The oil was first boiled to free it of any water it might contain. Then the substances were steeped in it for about 24 hours. Afterwards it was to be boiled till the water content was evaporated. The oil thus prepared was ready for use when it became cool.
11. *Arkas* : The substances either *ghana* (solid) or *drava* (liquid) should be boiled and through the distillation process, the steam should be turned into liquid. These are known as *arkas* or tinctures. This process in pharmacy was new in medieval India. This must have been taken from the Unani system of medicine. Rāvaṇapaṇḍita is the first scholar who explained this

1 *Hamsaviṃśati*, I-234.

2 *Ibid*

3 *Ibid*

4 *Basavapurāṇamu*, III.p.59.

kind of medicine in his work *Arkaprakāśa*. The *arkas* like *Karpūrārka*, *rōjārka*, *pudīnārka*, etc. are the popular drugs till today in our country.

12. *Drāvakas* or distilled mineral acids : A number of mineral substances or salts were heated in a resort and the distilled fluid collected in a glass-receiver. Basavarāju in his medical work *Basavarājīyamu* gave a graphic description of the preparation of the *drāvakas*. The literary sources also prove that the physicians were experts in preparing the *drāvakas*.¹
13. *Kṣāras* or Caustics : These were prepared with the ashes of many plants. To these ashes were added some water and ashes of calcined sea-shells, strained and boiled. Then it was to be dried in the sun. These were administered with other medicines.² *Palāśakṣāra*, *Muṣkakakṣāra*, *yavakṣāra*, *suvarcakṣāra* and *tilanalōdbhavaḥkṣāra* are called *Pancakṣāras* or the Five Caustics. In *Vaidyacintāmaṇi*, the *Aṣṭakṣāras* are explained as³ *Palāśa*, *sigra*, *apamārga*, *vārūna*, *arka*, *yavagrāja*, *sarja* and *ṭankaṇa*.
14. *Anjanas* : These were applied in eye-diseases. These were prepared by grinding the drug substances with lime juice or honey, camphor, ghee, decoctions or water into soft paste and were applied to the eyes. Sometimes these were prepared in the form of *Kaṇikas*, or sticks.⁴ These were known as *varitis*. The popular *anjanas* of the period were "*nārikēlānjana*, *sauvīrānjana*, *virabhadrañjana*, *nīlānjana* *garuḍānjana*, *kapōtānjana*, *karpūrānjana* etc."⁵
15. *Bhasmas* : These were made by calcinating the minerals, *rasa*, *uparāśas*, precious stones, etc. The *bhasmas* referred in the literary sources are: *lōhabhasma*, *tāmraḥbhasma*, *vangabhasma*, *śīsabhasma*, *nāgabhasma*, *śāṅkhabhasma*, *suvarṇabhasma*, etc. The combination of different *rasas* with certain metals in calcination resulted in the occurrence of a nice saffron colour. This kind of *bhasma* is known as '*Sindhūra*'

1 *Hamsavimsati*, I-234.

2 *Basavarājīyamu*, vs.180-81, *Parahitasamhita*, Sudharanakanda, pp. 345-46.

3 *Vaidya Cintamani*, II, pp. 778-79.

4 *Basavarājīyamu*, vs.108 to 169.

5 *Hamsavimsati*, I-234.

Rasasindhūra and the pills made out of it were very much famous in those days.

Besides the medicines which were used to alleviate diseases, there were two other kinds of medicines which were used for the general toning up of the system of healthy persons. They are *Rasāyana* medicines and *Vājīkaraṇa* medicines. These form the last two branches of the *aṣṭāṅgāyurvēda*.

THE RASA SIDDHA MEDICINES

Indian medical tradition recognizes two schools of medicine i.e. Herbal and Rasa. The herbal (*mūlikā*) medicines is also known as Vedic or *Ārṣa* or *Brāhmi*. Rasa system of medicine is generally also known by different names as tantric, Saivite and *Siddha* systems though there can be found slight differences among these three. The medical historians divided the evolution of the doctrines of alchemists into three stages. The first alchemists were very much interested in counterfeiting gold and in all kinds of chemical and metallurgical transformations. In the second stage, the alchemists were interested in the pursuit of a 'philosopher's stone' which would give them a medicine of immortality or an elixir of life, i.e., it became longevity conscious. In the third stage, the alchemists made alchemy not an art for making gold, but the art of preparing medicines. Nityanātha Siddha and Gaurana of fourteenth century A.D. mentioned that Srisailam was a great centre of *Rasasiddhas* and many medicines were being prepared by the *siddhas* with the help of their students.¹

Dr.P.Kutumbaiah opines, " This school can only be considered as one of the schools of medicine of the later medieval period must have come into existence during the period between 14th and 17th centuries." Many works on *Rasasiddha* system of medicine were written in Andhradesa during this period. Among them mention may be made

1 Dr.M.Rama Rao, *The Temples of Srisailam*, p.5; *Navanatha Caritra*, p.296.

of *Rasaratnākara* of Nityanāthasiddha, *Rasarājalaxmi* of Viṣṇudēva, *Rasēndrakalpadruma* of Rāmakrisnabhaṭṭa, etc. It seems that Srisailam and Alampur were the famous centres where many *Rasasiddhas* lived and continued their research in metallurgical operations.

Siva is mentioned as the founder of *Rasasiddha* system of medicine. According to *Rasasiddhas*, Rasa or mercury is the semen of Lord Siva and *gandhaka* or sulphur is the menstrual blood of Gowri or Parvati. In *Rasārṇava* a work of 12th c.A.D. mercury and mica are identified with Siva and Gowri, the combination of the two being desturctive of death and poverty.

The *Rasasiddhas* were zealous adepts in alchemy. Their works deal with alchemy, Yoga and medicine. The pharma copoeia of the Siddha system is very voluminous. The chemical substances used in their therapy are classified into minerals, salts, poisons, sub-metals, mercury and sulphur. Five kinds of salts are described: two kinds of poisons, nine metals and 17 sub-metals are described. The metals are gold, silver, copper, lead, tin, zinc, iron, bell-metal and brass. The submetals include copper sulphate, zinc, mica, silajit, conch, pearls, coral, diamond, iron, sulphate etc. Most of the works on *Rasa Śāstra* are mere compendiums of the various substances used in medicine, their preparations, their indications, dosage, and dietetic instructions. Among the chemical processes described are bruising, trituration, instillation, steaming the ingredients, distillation, preparation of oils, decoctions, *kalkams*, powders, pills, confections, medicated oils, *bhasmas* and *sindhūras*. All the works contain the description of 'śōdhana' and 'māraṇa' of the metals and sub-metals used in medicines. The preparation, composition, mode of administration, indications, dosage of various *bhasmas* and *sindhūras*, are all clearly described in the various compilations available.

The *Rasasiddhas* accepted the *Vedic* or *Brāhmi* system of medicine in many respects and contributed much to enrich the system of Ayurveda. As a result of their efforts, Yoga was also accepted as a therapeutic system. According to some medical scholars, *nāḍīparīkṣa* or the examination of pulse and its importance in diagnosis of diseases was extensively developed by the efforts made by the South Indian medical scholars, especially the siddhas. But Jolly and P.Kutumbaiah did not accept this opinion.. Kutumbaiah says, " In the field of

diagnosis, they (*rasasiddhas*) have taken *nadi-pariksha* from "Saran-gadhara and the *Asthasthānaparīkṣa* from Bhāvamiśra.¹ But it can not be definitely said that the examination of pulse is merely a contribution of Sarjnadhara. Sources prove that the examination of pulse was prevalent in the practice of South Indian physicians in ancient period. Later Bahatacarya and Tisatacarya (13th c.) who were earlier to Sārjnadhara added in their medical works. In the writings of Bāhaṭācārya (13th c.), Lōlambarāja (14th c.), Indraganṭhi Vallabhācārya, etc., we find the description of the *aṣṭhasthāna parīkṣa*. The writers in the herbal system of medicine and the writers in the *Rasaśāstras* worked with mutual co-operation and understanding.

The great care required in the preparation of the medicines by the chemicals and the dangerous effects on the body caused by a slight change in the right proportion of the ingredients and the trouble in obtaining materials in pure form are some of the unfavourable factors in the practice of the *rasa* medicines. That's why some scholars preferred herbal medicines to *rasa* medicines. But some scholars preferred the *rasa* medicines because of the slow effect, prolonged treatment and the untidy environment due to the use of oil and viscous substances of the herbal system. The *rasa* medicines are more effective if preserved for a longtime whereas many of the herbal drugs will be ineffective if preserved for a longtime.²

But in Andhradesa, many of the later scholars explained both the prescriptions in their works in accordance with the nature of the disease. In case of venereal diseases and in some other incurable diseases, *rasa* medicines were prescribed as more effective. In case of general curable diseases, herbal prescriptions were explained.

In the beginning many attempts were made by some people to get *swarnasiddhi*. We find many references to such efforts in the literary works, local records and in the inscriptions also. People believed in the existence of Philosopher's stone which is capable of making gold.

1 *IJHM*, 1973, XVIII, p.25.

2 *Venkatadriyam*, p.10.

The Mancalla grant dated S'.1262 (A.D.1340)¹ mentions that Prolaya Vema was able to establish a kingdom with the help of "*swarṇakaraprasiddhi*". Kondaviti Dandakavile also mentions a story that Prolaya Vema got a philosopher's stone from a Vaisya and after getting much wealth with its help, he established a kingdom.² Anantamatya refers to 'Dhumaveda' by which one can get gold.³ In *Vasucaritra*, Ramarajabhusana mentions some of the articles such as the juices of the plants mica, mercury, etc used by a Yogi to prepare gold.⁴ Many other literary works of 15th and 16th centuries inform us that the people had belief in the *rasavāda* and *parasuvēdi* (philosopher's stone).⁵

Vēmana also made experiments in this field. Some people believe that he got *Swarnasiddhi*, but discarded it as useless with philosophical outlook. But some of his verses reveal a doubtful information regarding his faith in *Rasavāda*.⁶ *Navanātha Caritra* also describes the useless efforts made by some people to get gold through metallurgical operations.⁷

It seems that the *siddhas* who made incessant efforts to transmute baser metals into gold with the help of philosopher's stone, gave up their efforts to get gold and turned their attention to the discovery of chemical remedies in various diseases. When Vēmana came to this stage, felt pity for the ignorance of the other people who still continued their efforts to make gold, but could not succeed in it. He mentions in a verse that people require salt and soup and not gold to survive in this world. He wonders why people take pains to get gold while salt and tamarind are available in every village.⁸ Anyway most

1 Reddi *Sancika*, Appendix, p.4.

2 Survaram Pratapa Reddi, *Andhrula Sanghika Caritra*, p.135.

3 *Bhojarajiyamu*, II-180.

4 *Vasucaritra*, III-106.

5 *Madhuravijayam*, VII-45; *Sri Kalahastimahatmyamu*, II-137.

6 *Amukta*, VI-56; *Haravamsamu*, II-517; *Pancatantram*, p.135; V.P. 423, 438, 609, 677.

7 *Navanatha caritra*, p.242

8 V.P., 676, 2785,

of the people who failed in getting *Swarnasiddhi* became experts as healers and experts in preparing minerals drugs. Vēmana may be mentioned as one among them. In those days there was a proverb which mentions that 'one who fails in Vāda(rasavāda) will become an expert in medicine.'¹

Mercury is called '*pārada*' as it is a means of conveyance beyond the series of transmigratory states. It is believed that mercury alone can make the body undecaying, and imperishable. The poets of medieval Andhradesa referred to some of the *rasausadhas*. Peddana in his *Manucaritra* refers to '*rasaguḷika*' made out of mercury which gives immense health and strength to the people who take it with milk.² Kucimanci Timmakavi praises the virtues of the *rasa* medicines such as *Rasasindhūra guḷika*, *Pūrṇacandrōdayamu*, *Lōkanātharasamu*, etc. While describing the rising of the Sun, he says thus: "The sun rose on the sky as if the physician known as Dawn bringing along with him a red-pill (*rasasindhūraguḷika*) to cure a lady known as Lotus when she was suffering with *tapajvara*".³ In another place, he says that the medicine known as *Purnacandrodaya* which is made as an amalgaum of *rasa*(mercury), *gandhaka*(sulphur) and *suvarṇa*(gold) had great virtues and was incomparable in curing both physical and mental diseases and had great fame in this world. It was much esteemed by all the physicians as the most preferable medicine. His comparison of *Rasasindhūraguḷika* to the Sun reveals its invigourating power and health-promising nature.

The miraculous effects on the intake of these *rasa* medicines were described in an exaggerative way in the *Rasasiddha* works. They mention that a pill known as "*Rasasindhūraguḷika*" can promise never-ending youth and frees the man from death. If a medicine known as *gandhaka kalpamu* taken with the mantra "Ōm namō amṛta sikhāya amṛtarūpajīvanēdānavēndra ṇacājñāta Amṛtatvam dēhis-

1 "*Vadabhrasto, Vaidyasrestah*", Suravaram Pratapareddi, *Andhrula Sanghika caritra*, p. 136.

2 *Manucaritra*, III-25.

3 *Rasikajana Manobhramamu*, IV-104 & 157.

wāha", that a person though old, can get back the black hair, can become free of all diseases and can live for 10,000 years. And in some places it is said that a person will get divinity and will lead divine life; he can get the supernatural intelligence, etc., like this many miraculous powers were attributed to these medicines. Some Saiva physicians might have believed these implicitly and propagated them in the then society. Vēmana observed these tendencies and ridiculed the physicians who were misled by the miraculous powers attributed to the *rasauśadhas*. He tried to educate the people to realise the truth. He asks, "If people become deities on eating the *rasa* and *gāndhaka*, then what is the necessity of the Heaven? If the physicians in this world can do such wonders, will the physicians of the heaven not remain without worrying?"¹ We find the following philosophical ideas in the words of Vēmana. The intake of *rasauśadhas* may prevent the symptoms of old age to enter into one's life. It may prevent disease; it may promise long healthy and full life (100yrs). But the power of achieving in this life the union with divinity cannot be accepted. If it happens really; then what is the purpose of heaven existing somewhere else? There is much difference between *jagrt*(awareness) and *swapna* (sleep) where there is an earth, there will not exist heaven and where there is a heaven there will not be the other. The things of one world cannot be useful in another world. Then the activities of each of the world cannot be co-existed. To the Drama of this Creation of the world, the Earth and Heaven are the two inseparable plots. The Drama will not be enacted without any one of these. On the other hand if the effects of the *rasauśadhas* are so powerful, the *auśadhasiddhi* of the mortal physicians can overcome the will-power of the immortal or divine physicians. That's why Vēmana asks satirically that whether the divine physicians, will be

1. "రసము గంధకము మసవి దేవతలైన
స్వర్గమల వేరె భవము అర
భువి నైద్యులగని దివి నైద్యులైద్యుర" విశ్వ" "

much worried about the wonderful achievements of the mortal physicians.

It is a fact that the *rasasiddhas* exaggerated the efficacy of the *rasa* drugs. But we cannot underestimate their power. The *rasa* drugs which contain mercury and sulphur as compulsory ingredients and with other compositions proved very powerful in curing many chronic diseases. They were widely used against venereal diseases and also as *rasayana* drugs. *Bahulāśwacaritra*, a contemporary Telugu work informs us that the prostitutes gave much importance to *rasa* medicines. *Siddhamakaradhwaja*, *Pūrṇacandrōdaya*, *Rasasindhūraguḷika*, *Kāntavallabharasa*, etc. were the popular *rasa* medicines of the period.¹ These medicines were prepared with the help of glass jars specially designed for the purpose.

RASAYANA MEDICINES

Both Vedic as well as Siddha Schools of medicine give much importance to the *Rasayana* medicines. "These medicines are called *rasayana* on account of their capacity to impart superior *rasa* and *dhātus*. They are elixirs of life for preserving and increasing vigour, restoring youth, improving memory and preventing disease".² Some ancient Indian physicians with the aim of highlighting the virtues of some medicines relating to *rasayana tantra*, ascribed miraculous powers to them.³ It is said that by the use of the *rasayana* amalaka the *rishis* got back their youth and succeeded in living for many centuries, free from disease and endued with great strength of body, of mind and of the senses. Some people misunderstood the sayings of the medical scholars and tried to get *kāyasiddhi*, *adṛsyakaraṇi*, *ākāśagamana*, *kāmarūpa*, etc. It seems that they wandered in the forests eating leaves and roots, so that they could discover those herbs and get those

1 *Rasikajanamanobhramamu*, IV-104 & 157

2 Dr.P.Kutumbabai, *Ancient Indian Medicine*, p.123.

3 *Basavarajiyamu*, p.581.

extraordinary powers.¹ Vēmana refuted these and conveyed to the people that these were impossible things to be achieved and should be regarded as merely superstitious which would cause harm to the science of Medicine and to the Society.² According to Vēmana, both living creatures and the medicines consisted of *Ṣaḍdhātus*. He tried to prove the fact that it is irrational to think that one mortal thing can make another an immortal.

Basavarāju refers some verses from *Rasaratnākara*, *Nityanāthīya*, *Ayurveda* and *Siddharasāṃṇava* which mention that the *lōhabhasma*, a mineral drug if taken in will remove even a chronic disease; if taken daily it gives strength and removes diseases and oldage.³ Another verse from *Nityanāthīyam* mentions that *lohabhasma* promises health and longevity; it cures anemea, venereal diseases, leprocy, *ānavāta*, etc., and removes the symptoms of old age.⁴ It is also mentioned that many other diseases like slenderness, corpulence, piles, diarrhoea, the imbalance of *vāta*, *pitta* and *kapha*, enlargement of the spleen, spleen diseases, the dosa caused by the poison, the loss of epittite, paleness of the skin, jaundice, etc.⁵ Not only these rational effects, some other wonderful results were expected if used with some incantations.

A mineral drug known as *Kāntalōha* occupied an important place in medical ground. It is a good *rasāyana* medicine. About it the tantrics say, “*Kartavyam mantraucyatē, Ōm amṛtōbhavāyaswāha ityanēna lōhamāraṇam*” (If the purification and calcination were done with the mantra, the *Kāntabhasma* would become equal to that of nectar). Another drug known as *Kānthasindhūra* is the best one among the *rasāyana* medicines. It was believed to have had the power of alleviating all physical ailments and promising long life. And it was also believed that it was an aphrodisaic drug and would not allow old age to enter into one's life who used this medicine. The medical texts

1 V.P. 274.

2 *Vemana Padyalu* (C.P.Brown) TTD Pub. III-173.

3 *Basavarajiyamu*, Ch.XXV.verse.346,p.1063.

4 *Ibid*, V-347,pp. 1063-64.

5 *Basavarajiyamu*, vs. 348 & 349, p.1064.

also mention the same powers to the medicine known as *Kāntasindhūra*.¹

This kind of propaganda to the *rasāyana* medicines led to the common belief that the intake of *rasāyana* medicines would result in getting super powers. Vēmana says that *Kāntasindhūra* with honey cures only the diseases which happened due to the imbalance of *vāta* and *pitta* and gives strength to the body.² But they could promise neither long life nor evergreen youth. In a verse he reveals the nature of power one can get with the intake of mineral drugs.³ The mineral drugs alleviate the body from pains and tiredness. They cure the diseases like *rājayakṣma*, *urakṣata*, anemia and strengthens the body, but can not remove the fate of the human beings. One is to realise the fact that birth and death are natural in this world and cannot escape from them. The philosophy of Vēmana implied in this verse is that births and deaths cannot be removed by the medicines, but can be removed only by the destruction of karma.⁴ It can be achieved only by the real knowledge i.e. the realisation that the world is impermanent.

Philters and Vājīkaraṇa Medicines :

The contemporary literary sources give testimony to the prevalence of the usage of the philters in medieval Andhradesa. Some prostitutes and maidens had great belief in these lovepotions which intended to impart sexattractiveness. The preparation and application of these medicines was regarded as one of the arts that was to be learnt by not only the prostitutes but also the ruling class, especially the ministers.⁵ These love-potions were employed through food and drink in various forms such as powder, oil, paste, fumigation, etc. *Harṣaviṃśati* describes many kinds of philters used in those days. The paste made with a stick of *pallēru* (*pedalium murex*), *Chandana* (sandal) and honey; another paste made with *karakatāḍi*, *usirika*

1 *Baṣavarajyamu* ch.XXV, vs. 329-330, p.1060.

2 *V P.* 1269, 1273.

3 *Ibid.* 605.

4 *Ibid.* 605.

5 *Dasakumamara Caritra*, II, *Sivuratrīmahatmyam*, II; *Srikrishna-Rayandhra Sahitya Vijnana Sarvaswamu*, pp.412-413.

(emblic myrobalan) *Chengaluva Cōṣṭu* (a species of *Costu*) and milk; and the paste made with *Veligāramu* (Borax), *eṛṇaavisapuvvulu* (red *Linum Usitatisaimum*; common flax) and the sweat of the concerned lady (who wants to employ the potion) were the popular creams of this kind. Sometimes they used to give them with *tāmbūla* in a powdered form. Some of the powders of this kind mentioned in the literary works of this period were *kaligoṭṭu poḍi* (the powder of the trumpet flower plant whose botanical name is *Bigomia Chelomoides*) and *cokkupōḍi*.¹ Another form of application of these medicines is fumigation. The women used to fumigate the body of the person with the fumes of certain drugs having power to make one submissive.²

It seems that some house wives who were neglected by their husbands used to employ this kind of medicines on their husbands. But there is no evidence to prove that these medicines gave positive result as they wished. On the other hand, we come to know through literary sources that these medicines instead of changing their husband, killed them. In *Rukmāṅgadacaritra*,³ we come across such an incident that a woman repenting after her husband's death due to these medicines given secretly by her. On the advice of a woman, who was considered as an expert in these practices, she gave the potion through food to her husband. But unfortunately instead of making him submissive to her it killed him.

These practices of the womenfolk seem to have attracted the attention of the foreign travellers also. Linschoten refers to the betel given to the men thus: "This Arrequa some of it is so strong, that it maketh men almost drunke, and wholly out of sense."⁴

Vēmana abhorred these practices as evil and dangerous. He remonstrated that the people who ate these medicines would definite-

1 *Ushaparinayamu*, III-58.

2 *Hamsavimsati*, V-130.

3 *Rukmāṅgada Caritra*, III-239.

4 *Bulletin*, Vol.I (1&2), 1971,p.38.

ly fall ill and die on account of unhygienic ingredients of those medicines.¹

The literary works of the period inform us that the people had knowledge in the use of *Vājīkaraṇa* medicines. These were intended to improve the strength and virility of the person who used it. The contemporary works refer to the popular *vajikarana* medicines such as *Rasagūḷika*, *Makaradhwaja*, *Madana Kāmēśwari lēhya* and the juice made out of *jāpatri*, *cārapappu*, *śanaḡḷu* (Bengal gram), *anumulu* (phaseolus radiatus), *gasagasālu* (the seeds of poppy plant), *munagapuvvulu* (the flowers of *Hyperanthera mortinga*), *madanapāla* seeds (the seeds of *Datura fastuosa*), and coconut.²

Linschoten seems to have heard about many customs, habits, the faithlessness and unchastity of women and the tricks and practices adopted to achieve their ends. He mentions that the women were experts in making medicines of this kind.³ He might have heard of these practices with some exaggeration. He seems to have been very much excited about the strange customs in a strange place heard from the strangers who did not well know his language. He then noted down the things in a way that he understood the things from the hearsay

1 *Verses of Vemana*, VRS Sastrulu & Sons, Madras, 1955, V.1035.

2 *Hamsavimsati*, v-131

3 D.V.SubbaReddi, "A Dutch Traveller of 16th Century". *Bulletin, IHM*, Vol.I (1&2), 1971, p. 38

Linschoten writes, "They have like-wise had herbs called Deutroa, which beareth a seed whereof brusing out the sap they (put it into a cup or other vessell and) give it to their husbands, eyther in meate or drinke, and presently therewith, the man is, as though here were halfe out, of his wits, and without feeling or else drunke, (doing nothing but) laugh, and sometime it takes him sleeping (whereby heleith) like a dead man, so that in his presence they may doe what they will, and take their pleasure with their friends, and the husband never know of it. In which sort he continue the foure and twentie hours long, but if they wash his feet with colde, water hee presently reviveth and knoweth nothing thereof but thinketh he had slept:"

Dr. Paludanus, a doctor friend of Linschoten adds an annotation to the above "Deutroa of some called tacula, of others datura, in spanish burladora, in Dutch Igell Kolben, in Telugu Vumeta Caya, in Ganara Datura, in Arabia Marana, in Persia and Turkie, Datula".

and observation. He refers to the *vājīkaraṇa* medicines which they (the women) practise, "to make nature more lively (to abound and) move them there unto they do use to eat those Betteles, Arrequas, and chalk and in the night it standeth by their bed (sides, this) they eat whole handful of cloves, pepper, ginger and a baked kind of meat called Chachunde, which is mixed (and made) of all kinds of spices and hearbs, and such like meates, all to increase their leachery".

Chachunde, mentioned by Linschoten is explained by Paludanus thus: "Chachunde in my opinion is made of the mixture called Galix moscat with the sape of sweet wood: (They) are balcke cakes whereon certine characters are printed. At the first very bitter of taste but in the end verie pleasant and sweet they strengthen the hart and the mawe and make a sweet breath." Linschoten further says, "And they are not content therewith, but give their husbands a thousand herbs for the same purpose, to eat they not knowing, thereof thereby to fulfil their pleasure, and to satisfie their desires".¹

The physicians of medieval Andhradesa prescribed many *vājīkaraṇa* medicines for increasing virile power and producing progeny. They gave the prescriptions for the making of *brāhmya*, *āmalaka*, *harītaki*, *braṇakāmiya rasāyana* and *chyavanaprāśa*. Besides the physicians, many people belonging to different castes were engaged in preparing these medicines. Generally the Koyas and Cencus who were tribals used to sell them wandering in the streets or sitting at one place in the weekly santes. Besides these tribal people, the gollas (shepherds) also prepared the philters. Ayyalaraju Narayanamatyudu, while describing the house of gollas, hints this fact.² They used to sell them as *gaikarnika*, *kāvu*, *mogasiri kriya*, *banti*, *badanika*, *gulika*, *mūlika*, *vibhūti*, etc.

Thus it is clear that there were many kinds of medicines prepared and used by the people of different classes. There were also *rasa* medicines and such other critical medicines which could be prepared

1 D.V.Subba Reddi, "A Dutch Traveller of 16th Century", *Bulletin, IHM*, Vol. I (1&2), 1971, p.39.

2 *Hamsavimsati*, II -75.

only by the physicians and could be used only on the advice of a physician. Hence we cannot believe the statement of Fryer (17th c.A.D.) when he writes,¹ "Pharmacy is in no better condition. Apothecaries here being no more than perfumers or Druggists at best; for he that has the boldness to practise, makes up his own medicines, which are generally draughts." But it is true that many of the drug substances and drugs were sold in the janapada shops and in the weekly fairs. Linschoten mentions² in one place that in apothecary shops, packing was made with leaves. Most of the medicines were prepared by the physicians only. Especially, the *rasa* medicines which were extensively used during this period in Andhradesa were prepared by the expert physicians only. With regard to the preparation of these medicines, an expert physician was the foremost requisite since a slight difference in the proportion of the ingredients resulted in dangerous effects.

The hospitals attached to the temple or a *matha* employed the physicians with some assistants and used to keep ready many kinds of medicines, such as "*Brāhmīrasāyana, vāsāharitaki, daśamūlaharītaki, uttama karnyādi taila, bālakōraṇḍa-vāsādi taila, lasunādyēraṇḍa taila, biḷvādighṛta, mandāravaṭi, dravavarti, sunētravarti, kaḷyaṇalavaṇa*" etc.³ Grants were made to meet the expenditure for the preparation of medicines. An inscription in the regnal period of Coda Tikkaraja belonging to A.D.1245⁴ refers to the pharmacological procedures such as *rasāyana, padānjana, ghaṭika, kanyakāvāda, mantravāda, dhūmravāda, rasavāda, garuḍavāda*, etc., in that place (Udayagiri, Nellore dist.). Another lithic record⁵ appeared in Tummagudem, Ramannapet taluk, Nalgonda district, registers a grant made for the daily worship and to meet the expenditure of the preparation of medicines. Thus inscriptions also refer to some of the drugs and

1 *Bulletin, IHM*, Vol.II(4), Oct. 1964, p.249.

2 Linschoten, *Purchas, Pilgrims*, X, pp. 247-8.

3 *E I*, XXI, pp. 68-72; *South Indian Temple Inscriptions*, Vol. III, Part II, p.204

4 *Bharati*, 1985, June, p.17.

5 K.V.Sarma, *Āyurveda itihasamu*, II, p. 358

drug-substances used and some of the pharmacological methods followed in this region.

During this period, Andhara country became famous for its rich *materia medica* and the significant pharmaceutical operations of the scholars and saint-physicians. The writings of Linschoten and Tavernier testify to the facts that the Europeans also were very curious about our drugs and drug-substances. Not only the foreign accounts but also the indigenous literary and medical works and inscriptions prove the fact that the Andhra scholars were experts in collecting a great variety of drug substances, in identifying their *rasa*, *virya*, *vipaka*, *guna* and *prabhava* in preparing medicines out of them and administering them appropriately in the treatment of various diseases. The prescriptions of Lōlambarāja, Basavarāja and Indrakanṭhi Vallabhācārya gained tremendous popularity all over India. It was because of their wonderful prescriptions that the physicians all over the country followed them keeping the manuscript copies of their works with them. A note worthy thing here is that their prescriptions could be easily made with the substances available in the surroundings or in the nearby grocery shops. In those days when the majority of the population belonged to the middle or poorer classes, these medicines with less expenditure, sometimes inexpensive and with easy availability, made their grievances tolerable.

The development that was achieved in the field of pharmacology in Andhradesa reveals the hardwork, the scientific outlook and the zeal in the new findings of the scholars. They welcomed, with broad mindedness, many changes in the art of making medicines. The critical methods such as the calcination of mercury were the contributions of the Andhra scholars. During this period, Andhradesa attracted the attention of the scholars throughout the country and abroad. The temples and *mathas* became great medical centres and they served as residences to the learned saints and scholars and as laboratories to their practical operations. Especially, Srisailem area with its forest surroundings, was always smoky with putas functioning around. The literary and medical works and the inscriptions inform us that the physicians of this region were experts in making many forms of medicines such as *sindhūras*, *bhasmas*, *ghṛtas*, *cūrṇas*, *lēhyas*, *rasāyanas*, *tailas*, *vaṭikas*, *guḷikas*, *aṇjanas*, *rasauśadhis*, etc. Some

popular and significant drugs such as *kāntavallabharasa* and *pūrṇacandrōdaya* were the result of the incessant research of the Andhra scholars. The ancient physicians did not seem to have observed the difference between the *āsavas* and *ariṣṭas* in their making. Caraka, Susruta and Vagbhata explained the *ariṣṭas* but named them as *āsavas*. Śārjñadhāra and Bhāvamiśra, the great scholar-physicians of Vijayanagara empire explained the difference between the two.

Accepting on the one hand, the indigenous scientific tradition, the Andhra scholars welcomed the new methods of pharmacology, tested their efficacy and added them in the indigenous system. For example, *arkas* are the drugs made in the Unani pharmacological method. Rāvaṇapandita took the drug-substances without any change from *Bhāvaprakāśa* in explaining the making of the *arkas*.

In the universe, there grow a variety of plants, trees, animals and other creatures. Every country has its nature's wealth grown according to the climatic conditions prevailed there. But their credit is exposed when their merits are identified. The Andhra physicians exploited the merits of everything in nature. The credit of observing every object herbal, animal and mineral, finding out their *rasa*, *vīrya*, *guṇa*, *vipāka* and *prabhāva* and adding them to the *materia medica* goes to these scholars. They keenly observed the medical practices prevailed in the society, tested their efficacy and welcomed them in their practice in accordance with their scientific nature. It is due to this reason that many new prescriptions and new methods of making of medicines took place in the writings of the Andhra scholars. They did not hesitate to take anything scientific irrespective of its origin—either in the tradition established on the previous experience or in the foreign system.

CHAPTER - V

Medicine in Practice (A.D. 14th c.-17th c.)

The purpose of Ayurveda is explained in two divisions i.e., 1. *Swasthavṛtta* and 2. *Āturavṛtta*. In *Swasthavṛtta*, the methods of maintaining good physical as well as mental hygiene of an individual and the environmental hygiene are explained. In *Āturavṛtta* are explained the methods of regaining health from illhealth. During this period, the physicians gave equal importance to these two. If we keenly observe the literary sources and the medical works of the period, we can find out a thing that they were more particular about the methods of how to protect the health of the people than in the study of the principles. They accepted the principles laid down by the previous scholars and spared much time in finding out the new diagnostic and therapeutic methods. Their new findings were propagated among the common people also.

DISEASE AND TREATMENT

The ancient medical scholars put forth three causes of disease. They are : (1) the excessive, deficient and wrongful administration of sense objects, (2) the climatic characteristics of heat and cold and (3) the misuse of intelligence.¹ The physicians and medical scholars of

1 C.S., I-153.

medieval Andhradesa, though accepted all these, stressed on the climatic characteristics of heat and cold. They realised the disease mainly as the result of *dhātu vaiṣaṃya* or disharmony of *dhātus*. This disharmony happens mainly due to the changes in the climatic conditions. That's why they prescribed the drugs which have the medicated influence to bring back the deranged *dhātus* to normalcy. They suggested not only the medicines, but also certain dietetic rules to follow. The scholars observed many new diseases and different kinds in the same disease. They found that diseases are caused by the germs and insects. They classified those diseases also as *Vātaja*, *pittaja*, *kaphaja*, etc. According to them the germs or insects enter into the human body and act on the dhatus of the body. If *vāta* is effected by them, then the disease occurred was called as *vātaja*. That's why the physicians employed, such medicines as the compounds of *rasa*, *viṣa* and *pāṣāṇa* to destroy the germs and to bring back the *vāta*, *pitta* and *kapha* to equilibrium. Thus we find that the main aim of the treatment is to perpetuate the harmony of the *dhātus*, prevent their disharmony and bring the *dōṣas* back to their normal state of equilibrium when disturbed. Ugrādityācārya, therefore, rightly wrote that physicians treat the good or virtuous persons everyday by administering medicines agreeing with the life, age, *agni* (digestive fire), mind, region and also observing carefully the constitution or temperament, medicine, disease and seasons.¹

Treatment has been considered most important in any medicine. The sages asserted its importance in the context of Ayurveda. The treatment has four pillars which are very important. These are the physician, the patient, the medicines and the nurse (servant). Even among these four, the physician is the most important.²

Vemana also stresses the necessity of the treatment for every disease and that medicine has to be prescribed by a physician only.³

1 Dr.B.Rama Rao. "Kalyanakaraka", *Bulletin, DHM*, p.211.

2 *Ibid* II (4), p.211.

3 *V.p.* 4343 & 4345

The literary and the archaeological sources inform that the people worshipped Sun as healer of diseases and protector of life.¹ It is said that Vrddha Harita was relieved of his oldage and became a youth and a king named Vimala was also cured of leprosy by the grace of Sun.² Almost all the scholar-physicians of medieval Andhradesa explained the *Karmavipāka* along with the scientific causes of the diseases. *Madanamahārṇava* is a work merely on *Karmavipāka*. Indrakantḥi Vallabhācārya, the author of *Vaidyacintāmaṇi* also gave the reason of the disease as a result of the sin committed in his past life or previous stage of this life by the victim of the disease. The other medical scholars of this period also explained this *karmavipāka*, but they were not so particular as Vallabhācārya. They mentioned only in some places. Even Vallabhācārya did not stop with the mentioning of merely the *karmavipāka*; he further explained more elaborately the scientific causes of the diseases.

The scholars who composed medical works during this period, read many sciences, dharmasastras and literary works along with their main subject of study. They not only studied the subject practically; but also observed the society. As learned men they felt it their responsibility to safe-guard the ethical values in the society. They tried to infuse fear against sin in the minds of the common people.

In case of treatment also, they prescribed some propitiatory activities along with medicines to inculcate in the people charity, righteousness and respect towards the religion and dharma. But the common people, who were mostly illiterate, could not follow the aim behind the moral injections of the physicians. And the medical knowledge of the common people was not desciminated on rational line. That's why there crept many superstitious beliefs and customs into the traditional methods of treatment in society. It was at this time that Vēmana, Lōlambarāja, Hejību Rāmanna and some other anonymous physicians started their remonstrations against the evils with regard to treatment. Vēmana, who extensively toured observing

1 *Kasikhandamu*, III-181; VI-II,13.

2 *Kasikhandamu*, VI-27,

the habits of the people noticed that they were not able to understand the scientific way of treatment, and blindly following the irrational methods. He warned the people that this kind of trend in the field of medicine is very harmful and advocated that diagnosis and treatment should be done in a scientific way.¹ He stresses on the necessity of treatment against every disease and that medicine should be prescribed by a physician only.² He hints the importance of the presence of a physician, nurse and the faith of the patient on the physician in the treatment.

THE DOCTRINE OF TRIDŌṢA :

The Doctrine of Tridōṣa plays an important role in the indigenous system of medicine. It is the basis of its diagnosis, pathology and therapeutics. *Vāta* is a combination of the two elements of the universe, namely air and ether (*Ākāśa*). Without the existence of *Vāta* in the body, the organs of the body cannot function. The excretory organs stop functioning. Breathing is not possible and there will be no energy in the body to function. *Pitta* is an amalgam of fire and earth (*tēja*). Without *pitta* the food we eat cannot be digested. The general heat of the body, vision, softness of the body, and splendour of complexion cannot be gained. There will be no hunger, thirst, cheerfulness of mind and intelligence cannot be had in the absence of *pitta* in the human body. The *kapha* is the combination ether and water and without it there will not be found courage, energy or coherence etc., in the body. These three are believed to be the *dhātus* or principal elements in the human organism. Among these *vāta* is considered to be the prominent one.³

In Rīgveda, for the first time, the word *tridhātu* is used in medical context. Sāyana, who wrote a commentary to this ṚK, interpreted

1 V.P., 4346, 4343 & 4345.

2 *Ibid* 3911

3 V.Sankara Sastry, "Andhravaidya Sampradayamu Dani Visistatha", *Sri Dhanwantari*, Vol 36(8), Dec. 1973, p.5

them as *vāta*, *pitta* and *kapha*. These, when they are in balance, are called as *dhātus* and when excited or derranged, are known as *dōṣas*. Thus according to this theory, the *Tridōṣas* are in balance in the healthy human body and when that balance is disturbed a disease is born.

We find many verses of Vēmana mentioning about the function of *tridōṣas*. He compares the human body with a chariot, having five nails for its normal functioning in the world and states that the life leaves the body, when the nails fall down.¹ These five nail are considered to be the five *vātas*. Caraka speaks of five *vasas*. Ugrādityācārya also gives the five *vātas* thus: 1.*udāna*, 2.*prāṇa*, 3.*samāna*, 4.*apāna* and 5.*vyāna*.² Ayurveda lays stress on the importance of five sub-divisions of *vāta* which control and maintain the physiological functions of the body. According to Ayurveda, the vitiation of all the five *dōṣas* at a time leads to death. Vēmana states that *Prāṇavāyu* is the most important among the five *vayus*.³ He also mentions that the function of *apānavāyu* is in the process of defecation.⁴ He states that *vata* increases the sexual desire of a person.⁵ According to Ayurveda, a man with the predominance of *vāta* is talkative. Vēmana also states it in a verse.⁶ He also indicates in one of his verses a close relationship between the *pitta* and insanity.⁷ Another verse mentions that the aggravation of the *Kapha* leads to the failure of the functions of brain and also produce unconsciousness indicated by the closure of eyes. He explained these symptoms as of impending death.⁸

Krishnadevaraya mentions that the excitement of the *kapha* and other *dōṣas* results in the loss of epitite as it reduces the production

1 *V P*, 1771

2 *Bulletin, IHM*, VI(1), p 11

3 *V P*, 4328

4 *Ibid.*, 3122

5 *Ibid* 4311 *V V* 798

6 *V P*, 4314

7 *Ibid.*, 3166

8 *V P* 1144

of the *jaṭharāgni* (digestive fire).¹ Krishnaraya states that it can be cured by taking a proper medicine. But in the case of diseases caused by the excitement of *vayu*, he opines that the method of massaging the body (probably with oils prescribed for it) is the best treatment.²

In *Madhurā Vijayam*, Gangadevi writes that the aggrevation of *vata*, *pitta* and *kapha* results in a disease known as *Sannipāta jvara*.³ Mallinatha Suri, the great commentator of many sanskrit works and who was the court poet of the kings of Racakonda, explains the *Sannipāthikā Vikāra* as the ailment caused by the vitiation of three humours simultaneously.⁴ In another context, while describing the disease *apasmāra*, he explains thus: "The person suffering from *apasmāra* (epilepsy) having lost his sense, cries or makes big noise due to the vitiation of the humours in the *manas* (mind) and his mind becomes imbalanced. He bites his teeth, emits froth, moves the hands and legs, sees unexisting things (acts as if he is seeing some things, though actually they are not there) falls down on the ground, acts without a purpose. After some time, when the deranged humours return to normalcy, the characteristics of the disease themselves disappear gradually."⁵ In one of the verses of *Mēghadūta*, he states, "When a person is first cleared off of the vitiated humours by vomiting caused by the administration of emetics, and then is given to drink water which is *laghu*, *tikta* and *kaṣāya*, for drying up the *kapha* humour, he gets good strength and then his *vata* humour can not be vitiated."⁶

Ayurveda states that *vāta* is predominant in old age, *pitta* in youth and *kapha* in childhood. But the statement of Vēmana seems to be contrary to this. He opines that in childhood, *vāta* pre-dominates, in youth, *pitta* and in old age, *kapha* predominates.⁷ Anyway, the ag-

1 *Āmukta*, IV

2 *Ibid* IV-269-70.

3 *Madhurā Vijayam*, III-30.

4 *Bulletin, IIHM*, vol.IX, 1979, pp.14-15.

5 *Bulletin, IIH*, Vol:IX, 1979, p.15.

6 *Ibid*

7 *VP*, 4315.

gravation of *vāta* can be seen in children as well as old people as common. The literary sources prove that the common people also well knew the *tridōṣas* and the diseases caused by their aggrandisement.

Thus the doctrine of Tridosā or three humours plays a keyrole in the diagnosis of diseases since it is believed that health or disease in one's body is caused by the balance or imbalance of these three. The treatment also is taken up with a view to perpetuate the harmony of the *tridhānus*, prevent their disharmony and reinstate the *dōṣas* to their normal state of equilibrium when their harmony is disturbed by any cause. The main difference between the indigenous and foreign systems of medicine lies here only. This doctrine pervades the whole system everywhere in the diagnosis, treatment, etc. With the development of the examination of pulse, the identification of the position of the *dhānus* and *dōṣas* became easier.

DIAGNOSIS AND PROGNOSIS

The early works on Indian Medicine suggest three special methods of diagnosis- (1) the instructions of the inspired (*āptōpadēśa*); (2) observation (*pratykṣa*); and (3) inference or indirect method (*anumāna*). In the method of observation, the Indian physician employed not only inspection, palpation and auscultation, but even pressed the sense of taste and smell into the service of diagnosis. Though palpation and the use of the sense of touch is said to cover the examination of pulse, to assess the derangement and the degree of vitiation of the humours, are not found in the early works. The method of finding out the degrees of vitiation of the *tridōṣas* and any other disorders in the body on the basis of observation of the rapidity and the volume of the pulse, appears only from the medieval period. In addition to this, the practice of examining eight elements i.e., pulse, stools, urine, tongue, sound, touch, eyes and complexion came into extensive practice due to the efforts made by the Andhra scholars of medieval period.

EXAMINATION OF PULSE

In the early stages of human civilization, man used to identify the presence of disease in the human body by the observation of appearance of the abnormal developments in the body. The conditions that appeared in the body such as high temperature, redness in the eyes, the increase in the speed of respiration and perspiration, the speedy movement of pulse exist in both sides of the neck, the increase of the movements near the naval, etc., helped the physician in identifying the existence of disease in the body. For a long time it continued and developed as *nidāna* (causes) of the disease in the Indian medical system. Gradually the physicians started observing the movement of the pulse both the sides of the neck, at the wrist and ankle.

Some scholars say that the Egyptians explained about the beating of heart, circulation of blood, movement of pulse, etc. The Chinese writings mentioned that the movement of pulse is in accordance with respiration and the doctrine that by the movement of the three pulses that exist on each side of the body, one can observe even the minute changes that happen in the human body. The Greek physicians Galen defined the nature and characteristics of the movement of pulse. All these developments reveal the fact that the knowledge regarding pulse received the attention of the scholar-physicians of various countries. Some scholars mention that especially, the Greeks, the Chinese (225 B.C.), the Arabs, the Egyptians and the Persians (even in the first century B.C.) paid greater attention on this subject and undertook research work in this field. In India, the traditional system developed its own diagnostic system developed and it was in practice as the *pāncalakṣhaṇanīdana* keeping pace with the *tridoṣa* theory. Some medical scholars like Jolley and Kutumbaiah opined that the feeling of pulse in medical examination appears to have reached India from Arabia or Persia. They believed that the Indian medical scholars received the knowledge with regard to the pulse-examination and alchemy after the Arab invasions on India. As the Indian writers on medicine did not explain the examination of pulse in their medical works, it gave scope to such opinions. If we observe the general literary works, the works on Yoga and Medicine keenly; it can be

noticed that the Indians were the first to observe the importance of *nāḍi* in the human body. The word *nāḍi* is of Dravidian origin which means the bearer of the movement and by *jīvanāḍi*, it is meant the indicator bearing the movement of the spirit of life. The examination of *nāḍi* is basically a yogic practice. It is commonly used in the sense of an indicator of the pathological state encountered in human body.

The knowledge regarding yoga in the human society seems to be very ancient. Its existence can be seen in the Indus Valley society where people worshipped Lord Siva in a yogic posture. After the fall of Harappa culture, we can find the development of Yoga and Tantric cults more in South India. In *Rāmāyaṇa*, Vālmīki explained the performance of pulse-examination by Suśēṇa, a South Indian physician. Suśēṇa, who attended the war-camp of Rama at the time of Rāma-Rāvaṇayuddha examined the pulse of Laxmana, who fell fainted in the war field. Susena made diagnosis on the basis of the examination of pulse and prescribed the drug. It indicates the prevalence of the system of examination of pulse in the medical practice even in the epic period. It might have taken up by the Aryan scholars later. It seems that the ancient physicians of North India received and developed the anatomical knowledge of *nadi* encountered in human body but were not so proficient to identify the particular *dosa* which caused disease on the examination of the pulse.

Acarya Nagarjuna, who established a medical centre on Nagarjunakonda, gave importance to Yoga. He built a big gallery where yogic practices were taught and exhibited for practical knowledge. It gives us an idea about the importance given to yoga in therapy in the medical centre. In *nāḍiparikṣa*, the tridosa theory was observed. The physicians identified the *dōṣa* which caused the ill-health after examining the pulse of the patient. The texts on Yoga also describe the disease in terms of dhātuvaiṣamya or the imbalance of vata, pitta and kapha (*tridōṣa*) of Ayurveda. Thus we find that Yoga was a part of indigenous medicine in case of diagnosis.

It was believed by the ancient medical scholars that *nāḍiparikṣa* should be done only by an expert and regular practitioner in Yoga. That's why, the ancient *triad* did not lay stress on it in diagnosis. The *siddhas* and the other monks of South India, who were experts in medicine, though made use of pulse-examination in diagnosis did not

explain it in their medical works which were written on the line of the works of Caraka, Susruta and Vagbhata, till the middle ages. But we should not think that they neglected it completely. Not only the scholars in Yoga but also the medical scholars explained the pathological and physiological knowledge of the nadi but also the diagnostic and therapeutic uses on the attainment of *nāḍijnāna*. *Lingapurāṇa* mentions about the lineage of acaryas belonging to the southern India, viz., Silada, Nandikēswara and Ravanacaryas. Ravana, an acarya of the above lineage states, "pulse like a lamp; throws light on all the physiological and pathological states encountered in man."¹ Later, during the medieval period, medical scholars like Tisatācārya, Bāhatācārya, Śārjnadhara, Lōlambārāja, Vallabhācārya, Basavarāja, etc., explained the methods of the examination of pulse. They explained the characteristics of the pulse as *vātanāḍi*, *pittanāḍi*, *kapṣanāḍi*, *vāta-pittanāḍi*, *kapha-pittanāḍi*, *vāta-kaphanāḍi*, *sannipātanāḍi*, etc. in accordance with the movement of the pulse of the patient. This kind of pulse-examination to type the patient into appropriate dosic profiles was first explained vividly by Trisatācārya (12th or 13th century A.D.) in his work *Cikitsākalika*. He compared the human body with a *mṛdanga* is entangled with the strings the human body also is entangled with 7000 pulses start from the heart, some from the naval, spread in the whole body and tied at the anus. The movement of the pulse depends on the condition of the *tridhātus*. When the *dōṣas* increase the *dhātus* (the fundamental constituents) are vitiated and as a result of it, many diseases either excessive or deficient, they upset the equilibrium of *dhātus* and cause trouble to the body and the diseases so happened and their therapeutics can be identified with the help of pulse examination. Such a method of diagnosis was first explained in the medical treatise by Trisatācārya. This inaugurated a new era in the history of Ayurveda.

Śārjnadhara who belonged to the early fourteenth c.A.D. mentioned that the well-being or the grievances of a man can be known by the examination of his pulse. But he did not give elaborate descrip-

tion of the uses of pulse-examination. Nityanatha Siddha of the same century made use of the examination of tongue and excretion in addition to pulse in the diagnosis of a disease.¹ Bāhaṭācārya, a profound scholar of medieval Andhradesa explained vividly seven other places of examination in addition to pulse, i.e., *mūtra* (urine), *mala* (stools), *jihva* (tongue), *śabda* (sound), *sparsa* (touch), *nētra* (eyes), and *ākāra* (appearance). With this new invention, a great development is achieved in the field of *nidāna* especially as a result of the research work under taken by Bāhaṭācārya. It seems that it was only after these new inventions, the science of medicine came to be popularly known as “*Bāhaṭasāstra*”. Indrakanṭhi Vallabhācārya had taken this examination of eight elements and referred in his work *Vaidyacintāmaṇi* without any change. Lōlambārāja and Vallabhācārya propagated these methods all over India. Their works containing these new methods spread all over the country and popularised the new developments and inventions. But Basavaraju, who lived in the first quarter of sixteenth century, described only four places, i.e., pulse, touch, appearance and sound. Perhaps these four were the popular and were in general use in those days. Bhāvamiśra who belonged to mid sixteenth century A.D. described the examination of eyes, tongue, urine and pulse in addition to the *pancalakṣana nidāna*. The author of *Yōgaratnākara* who is believed to have belonged to Andhradesa also gave importance to the *aṣṭasthāna parīkṣa* or the examination of the eight places. The author after explaining the eight-fold examination again says that the physician who is ignorant of the examination of pulse, tongue, urine and eyes shall be regarded as harmful to the patient and such physician cannot gain reputation.² Thus it is clear that though the eight fold examination had developed, foremost importance was given to the above four kinds of examination, and if necessary the other kinds of examination too were taken up by the physicians of medieval Andhradesa.

1 *Sridhanwantari*, Dec, 1974, Vol.37, p 87.

2 *Yogaratnakara*, I-41

Thus the *Aṣṭasthānaparīkṣā* which was started by Bāhaṭācārya in Andhradesa was later popularised by the Andhra scholar-physicians like Lōlambarāja, Basavarāja, Indrakantḥi Vallabhācārya the author of *Yogaratanakara*, etc. Especially Vallabhacarya's contribution in this context is very significant. He made developments in the method of examination such as the testing of urine through the method of boiling it, etc. During the late medieval period, many works on the examination of pulse appeared in India (such as *Nāḍījīvana*, *Nāḍīparīkṣa*, *Nāḍīnidāna*, *Nāḍīdarpaṇa*, etc.)

Jolly opines that the feeling of pulse in medical examination appears to have reached India from Arabia or Persia in the middle ages. But here is an important thing to be noted with regard to the main factor that guided the South Indian physician to take the examination of pulse and urine in the diagnosis. The Tāmil works of ancient and medieval periods reveal the facts that the examination of pulse and urine are very important and essential parts of the *Siddha* system of Medicine. "Several works on nadi attributed to ancient *Siddhas* like Agasthya and others are available. Another interesting fact known from the works on *nadi* is that the word *nadi* denotes the supreme-self, consisting of seven elements, which is attained by the *yogins* by meditation. This concept of *nāḍi* in *Siddha* system follows the *yoga* philosophy to some extent."¹ Thus the development of *rasasiddha* system and *Yoga* in the middle ages guided the physicians of India to take up the examination of eight places including pulse and urine along with some other healing methods of these systems.

Almost all the medical works of medieval Andhradesa started with their medical works with the description of pulse-examination. Some scholars, on the basis of the observation of the medieval medical works, opined that the examination of pulse in diagnosis is the contribution of Andhras and was later followed by the other scholars of various parts of the country. The person who is proficient in *Yoga* can easily examine the pulse and without the knowledge of *Yoga*, one cannot so easily succeed in the examination of pulse.

John Marshall, the first English man to study Indian Antiquities (1668-72), observed the system of pulse-examination in practice thus: "The Hindoos reckon upon three humours in man's body, viz., *By* (bai, air), *pitt* (bile), *Cuff* (kaf, phlegm), which they know by the pulse upon the right hand, lying one finger near the bottom of the thumb upon the pulse upon the wrist and that is for *Cuff*; another finger by it nearer the arme and that is for *pitt*; and another nearer the arme and that is for *By*. So that if the pulse and the last finger named beate high then is the body, full of *By*; if under the other, then of *pitt*; if under the other, then of *Cuff*. If all the three beat high, then is the body inclining to a fever; if low and even, there is little nature (vital power) in a man; if indifferent high and even then in good health, if have good stomach (digestion).

When the *By* abounds, the Belly, Armes and Feet swell, and sometimes have pains in them. If *Pitt* abounds, then the Belly, Armes, feet and eyes are hot, and a man is thirsty. If *Cuff* abounds, the body and limbs are weak and have no stomach, if any-ill digestion proceeds from it, also much sweat.

The *Bye* rules the body from two *Gurries* (ghari, an hour of 24 minutes) before Sunrise and rules till, *purr* (*pahar*, watch of 8 ghari) 3 *Gurries*: then *Pitt* rules till night; then *Cuff* till *By* begins again.

I have met with some Doctors who call that *By* which here above is called *Cuff*, and that *Cuff* which above is basically *By*, so no certainty which is true."¹

The description of John Marshall is a very superficial remark on the system of Indian medicine. First of all he knew not even the fundamentals of Indian medicine. His description of the using of certain fingers to identify the position of *tridōṣas* is totally wrong. His consultation with the doctors and their confusion about the *tridōṣas*, etc., also is doubtful since the doctrine of *tridosas* is a heart to Ayurveda. Without knowing about *Vāta*, *pitta* and *kapha*, even a quack cannot start his practice. Even the common people till now in the

1 H.K.Kaul (ed), *Tavernier's Travels in India, An Anthology*, Oxford University Press, New Delhi, 1980, pp.298-99.

villages know it. They can identify some petty diseases which occur on account of the excitement of *vata* and *pitta*, though not of *kapha*, and follow the dietetic rules to bring back them at the state of normalcy. The Europeans underestimated all systems of India. With that preconceived notion, they wrote ill of Indian medical system also. They tried to make the Indians accept the greatness of their system to establish their superiority and authority here. They started establishing their hospitals and appointed their doctors there. The indigenous practitioners who had no patronage, disliked the social developments and followed a policy of 'touch me not'. That's why, after seventeenth century, stagnation started in the developmental process of Ayurveda.

PROGNOSIS

In ancient India, the art of prognosis developed as in the other civilizations of the world. It was in the Mesopotamian culture, that this art was cultivated to perfection. "The view of Babylonian medicine on prognosis show a very close parallel to those held in ancient India on the same subject. This great and essential similarity must be due to the close relationship that must have existed between the civilizations of the Indus Valley and of Mesopotamia."¹

Since India is situated in an extreme climatic conditions, the calamities of nature, and the resulting infectious diseases are very common and because of this reason, the human life became very uncertain. The ancient physician in pre-Vedic times who attributed the cause of the disease to the external agencies, looked to those agencies for some guidance as to the outcome of the disease. "But as magic and witch-craft were replaced by empiricism and new prognosis assumed a different aspect." The physicians wondered to find when the patient died inspite of proper treatment. They discovered that there were some diseases, which were incurable. They thought that

1 P Kutumbaiah, *Ancient Indian Medicine*, Madras, 1969, p.100

they are incurable because: "When life is about to depart, spirits, ghosts, infernal imps and demons approach the dying and from their desire to kill, prevent the action of medicine: hence no treatment is effective with persons whose lives are at an end."¹ Hence there arose a need to discover the factors that influenced the course of treatment for good or ill and how to ascertain them before hand. Thus developed the art of prognosis. From the ancient period to the medieval, many physicians keenly observed the characteristics of limbs, the birth stars of the patient, etc. to finding out the life expectancy and the omens, dreams, etc. to find out the curability or incurability of the disease of the patient. The experiences of the wise and the old were conveyed to the further generations. Thus were framed some methods and principles in prognosis.

Caraka deals with this subject in *Indriyasthāna*. In finding out the indications for ascertaining the life expectancy, he proposed to conduct this examination by means of direct perception, inference and the instructions of the wise, the same three methods he employed in connection with the study of disease. "Some of the objects of examination do not apply to a particular person. These should be considered by the aid of the instructions of the wise, as also by reason (or inference). Those however that appertain to the person himself should be ascertained by a careful examination of what is normal and what is abnormal. Deviation from the normal is of three kinds: (1) that which appertains to indications; (2) that which appertains to what is indicated and (3) that which is dependent on causes are indications actually arising in the body. It should be stated that there are some indication which are inherent in the body and others which appear abnormal conditions of particular kinds. The second kind are those whose determinants are symptoms bearing on disease. The third is that which physicians regard as determinants of one's life expectancy, notwithstanding they are not indications actually arising in the body. Then, again, in as much as these indicate the decrease of the period of life, they are also regarded as equivalent to symptoms

of approaching death. The wise declare that these are capable of assisting at the ascertainment of the period., that is, undisclosed by the first and second kinds of abnormality of life". The approach is purely rational and scientific. The three fold examination of all the incidents and the inclusion of accidents or omens in a rational scheme is noteworthy. The accidents or omens stand on the same level and have the same value as the observations made of the patient. They also are regarded as determinants of life expectancy, notwithstanding the fact of their being not indications arising in the body. In as much as they indicate the decrease of the life expectancy, they are also regarded as equivalent to symptoms of approaching death. Medical policy early demanded guidance as to the probable general course of a disease and its curability or incurability; also as to the nature of the patient and its probable influence for good or evil upon the treatment. The physician is not too confident of his skill and he is also conscious of the limitations of the healing art. The two main things that have to be known before any treatment is attempted are: what is the life expectancy and whether the disease is curable or not."¹

The medieval scholar-physicians took instructions from the ancient medical works and the works on *dharma sastra*, astrology, etc. In *Kāśīkhaṇḍamu* of Srinatha, it is said that if the penis is short and the urine is passed through the right circle, the indication is good. The body which gives the smell of either *madhu* (honey) or *maṣya* (fish) is a good indication. If the tone of a person is like a sound of the conch-horn, it indicates his good health condition. if he has five wrinkles on his forehead, he will lead a long life.²

The author of *Yōgaratnākara* says that the physician should first examine whether the patient is endowed with full-life or not since the positive result of the treatment mainly depends on it. He further explains the method of testing the longevity of the patient, "Whose eye-sight, hearing and touch etc., are normal whose feet and hands are with heat and fire of fever is less, his tongue is smooth; whose body

1 *Ancient Indian Medicine*, pp.101-102.

2 *Kasikhandamu*, IV-31, 32.

in fever does not sweat, his respiration and perspiration are passing through the nose, whose tone is free from *kapha*; who gets sound sleep, whose body is active, eyes and other parts of the body are graceful, such a patient is eligible to be undertaken for treatment.”¹

Some abnormal changes in the physical or mental conditions of the patient are observed as symptoms from which the nearness of the death is inferred. These symptoms which are known as ‘*ariṣṭas*’ are determined after the examination of many things. *Kāśikhandaṃu* gives the symptoms that indicate the nearness of death thus:² If the respiration is functioning only through the left canal of the nose, and if the pulse known as *Pingala* is moving weak, that person will die after three days. The person who sees the Sun around the clock for two or three days, he will not live more than a year. He, whose respiration is functioning equally through both the canals of the nose, will die after three months. He, whose *prāṇavāyu* becomes weak and flows through mouth, will die within three days. He, who sees a person in goldsmoke colour flying in the sky, will die after two years. He, who cannot see *Arundhati* (tongue) *Dhruva* (the top of the nose), *Viṣṇupudātēya* (the place between the two eye-brows) *nētramandala* (pupil), though he has eyes, will go to the house of Yama after six months. He, who feels the colours like black and the tastes like sour as the opposite characteristics; if his teeth, lips, neck, cheeks, and of the tongue discoloured; his nails, the beginnings of the eyes, turn into smoke-grey and smoke-pink colours and if he sees the rainbow at night, will die after 6 months. If the chameleon runs all through his body from top to bottom that person will die after 6 months. He, whose feet and breast becomes dry immediately after bath; whose image is seen in the mirror in the colour of copper, will die within six months.” Basavaraju referred these verses from *Kāśikhandaṃu* in his work “*Basavarājīyamu*.”³

1 *Yōgaramākara*, I - 140 - 145.

2 *Kāśikhandaṃu*, V-253 to 264.

3 *Basavarājīyamu*, pp.817-818.

In *Jaiminībhāratamu* of Pillalamarri Pina Virabhadru, the symptoms which indicate death are given thus: "One who cannot see the stars namely Dhruva, Vasiṣṭa and Arundhati, and the shadow of his own body, will expire in a year. One who sees the blazing Sun without any rays will die in eleven months. One who becomes very lean suddenly without any reason will die within eight months. If his toes or fingers change the dimensions, he will leave this world within seven months. If a crow or an eagle or an owl touches his head, death takes him over after six months. If his body shivers while taking bath, he will die after five months. If he finds his shadow as that of other, in six months and if he finds a sparkle in the region of Yama in three months, if he can not find his shadow in the mirror, in two months; if the region between the breasts become dry immediately after bath, in five weeks; if he cannot find his person in the eyes of others and if he cannot hear the sound from outside by keeping his fingers in his ears, within a short time, he will die."¹

The dreams of the patient also were taken into account to assess the curability or incurability of the disease of the patient and to infer his life expectancy. The great ancient physicians Caraka and Susurta also took the dreams into consideration. They described in detail the omens according to the dreams of the patient. The later physicians too followed them as in the other things of the subjects. The literary works of medieval Andhradesa too testify to the existence of this practice in the society. In *Simhāsanadwātrimsika*, it is said that since the dreams occur in accordance with the qualities of the *dhātus* (*dhātuguṇambula*) that existed in one's body. They are to be explained keeping in mind the proper method and knowledge of it and depending on the skill of analysing the import of the dream, it can be found in reality.² And it is also said that if the dream comes in the first quarter of the night, its import will come to reality in a year; if it comes on the second quarter, the result can be found after six months; if the dream occurs in the third quarter, the result will be seen within three

1 *Jaiminibharatamu*, VIII-98-102.

2 *Simhasanadwātrimsika*, IX - 54.

months; if it comes in the early hours of the day-break the result can be seen in few days and if the dream comes at the time when the cattle start to graze in the fields, the result will be experienced on the same day. If one dreams as if he climbed the elephant or horse or green tree or a mansion or an elevated step or a male beast, it is an indication for good health and gain of power. If a lice bites him or if he sees a bowel, human blood,, meat, curd, milk, liquor, ghee in his dream, it is an auspicious indication. If he finds water or blood in his dream, it purports his long life. Fire in the dream indicates the financial success and physical health. Any white thing except bones, cotton, salt or husk, indicates good omen. A patient who experiences such auspicious dreams may be diagnosed as possessed of long life, and the doctor should accept the treatment of the case. “

*Jaiminībhāratamu*¹ describes the bad omens in dreams indicating the death thus: “Whoever (in his dream) goes towards the region of Yama riding on a bear or monkey, whoever finds himself eating coal, hair and chaff, or a Jain *sanyasi* dancing and laughing at a corner, or whoever finds himself sleeping on the floor with his whole body anointed with oil or whoever is attacked by terrible soldiers, or whoever finds a woman who wore blue sari, going to the South, he will definitely die soon. Whoever climbs a donkey or a buffaloo or a camel, whoever drinks oil, iron-objects, fat, honey or liquor, whoever finds a monkey, smoke or crow, if he be a healthy man he will get the plagues and if he becomes sick, he will come to death. Among all these, buffaloo appearing in the dream and if climbs it in the dream, it is an indication of a calamity. According to *Kāśīkhaṇḍamu*,² “He, who sees his shadow as shivering, his mind wavering, sees two Moons or two Suns, can see stars in the day, cannot see them in the night; who sees the city of *gandharvas*, who sees the devils dancing, who cannot feel the sound of the ear-drums, who feels as he is being harrassed by the devils, the jackals, the dogs, etc., who sees the heap of the dust, the pole to which the slaughtering animal is tied; an if he

1 *Jaiminiyabharatamu*, VIII-98-104.

2 *Kasikhandamu*, V-263.

climbed an anthill, as if he bathed with oil; his head shaven, are the indications of death." Since in the case of these patients, treatment is useless, certain propitiatory rites, munificent activities and the philosophical instruction to the patient were recommended.¹

Fernao Nuniz describes such case thus:² "When a Brahmin is sick, before he dies, they send to call the learned Brahmins who are his priests, so that they should come to pray and console the sick man; and they talk to him of the affairs of his soul, and what he must do to save it, bidding him spend money in alms. After this ceremony is over, they make the Brahmin priests shave the sickman's head, and after the washing, it is their custom to bring into their houses a cow and the calf - there are very few Brahmins, however poor they be, who do not have one to live in their house - which cow, when they have finished washing the man's head, they take a turban and tie it to its neck and put the end of the turban into the hand of the sickman, and he gives it and the calf in alms for his soul to those priests who perform these ceremonies. On that day, he gives alms according to his position, and gives to eat to some Brahmins who are invited and come there for the purpose. They believe that when these ceremonies are made for the sickman, if he is to live he is soon cured of his infirmity, and if not that he soon dies."

Particular attention was paid to the observation of the ominous influences of purely fortuitous occurrences previous to visiting the patient. These are dealt in separate chapters in medical works. The time of the person who came to call the physician, his dress, feelings, way of talking, etc., the condition of the physician then, the birds or other animals' sounds, the omens that occur when the physician started to attend the patient etc., are taken into account as omens from which a favourable or unfavourable prognosis may be formed of the patient's illness.³

1 *Jaiminībhāratamu*, VIII-103&104.

2 Vasundhara Filliozat (ed), *The Vijayanagar Empire*, pp. 169-70.

3 *A Des. Cat. Tel. Mss*, GOML, XI, p. 2740.

The method of prognosis followed by the ancient and the medieval physicians of India reflects on one side their perception and power of observation, while on the other hand it reminds us of the primitive superstition. In Andhradesa, all the physicians did not follow the prognosis with such a superstitious attitude. The great physicians like Śarabharāju, Indrakanṭhi Vallabhācārya, etc., did not give place to these in their works. But the author of *Yōgaratnākara* and Aruṇagirinātha explained *Dūtaparikṣa*¹ (observation of the messenger, his moods, dress, movements, etc.) and the omens in their works. Basavarāju gave only a reference from *Kāśikhaṇḍamu*² of Srinathā some verses dealing with the indications of death. The author of *Yōgaratnākara*, though added *dutapariksa* and omens, did not advise the physician not to take up such cases which indicate bad omens. Hence it may be concluded that in the superstitious beliefs and their implementation, the learned physicians lost their faith. Though they took some omens as bad, they were not so particular to leave the case merely on this pretext. They added these things in their works, it seems, only to respect the *dharmaśāstras* and the tradition. They paid much attention on the diagnosis of the disease on the basis of new methods such as the examination of the pulse, stools, urine, etc. They invented many new drugs for the new diseases which appeared in the country on account of the Europeans. These facts prove that the physicians in those days continued their profession with much optimistic attitude.

Vēmana writes with regard to the omens thus:³ “ Those who understand omens and interpretation of moles, are not to be met within the Ironage. For their own profit men will explain the virtue of these. In cases where fortune meets us, they are accepted as its tokens.”

1 *A Des. Cat. Tel. Mss*, GOML .pp.2739-40.

2 *Basavarajiyamu*, pp.817-18.

3 *VV*, 880.

SEASONAL DISEASES AND OTHER DISORDERS

According to Caraka, one of the causes of diseases is the climatic characteristics of heat and cold.¹ Ugradityacarya, an Andhra physician of 9th c.A.D. explains how the climatic characteristics of heat and cold effect on the humours and produce disease thus : "The humour *kapha* which becomes accumulated during the cold season, is provoked in *vasanta*: *vāta* accumulated in summer is provoked during rainy season; *pitta* accumulated during rainy season, is provoked during sarat. One should eliminate these humours according to their accumulation or provocation. These humours, when provoked, move along with blood, all over the body singly or in combination of two, three, or four. These provoked humours may be mutually dependent and manifest effects of separate or individual humours or their combined effects and thus produce disease due to the changes of seasons." To escape from the occurrence of a disease in one's body, the medical scholars prescribed the diet to be taken in observance with the seasonal changes.

John Fryer, who observed the medical practices in South India in 17th century writes about the seasonal changes and their effect on the health of the people thus: "The diseases reign according to the seasons: the north blowing bodies are reduced firm, solid and active by exhausting the serious Humours, ad Hy p. 17 aph.Lib.3 for which cause Dry weather is more healthy than moist, in hastening Digestion and facilitating Digestion and facilitating excresion, when no Fevers that are treacherous root themselves in a deep putrefaction. About the variable months they are miserably afflicted with Coughs and Catarrhs, Tumours of the Mouth and Throat, Rheumatisms, and intermitting Fevers; also small-pox invades youth, as in all India, so here; In the extreme Heats, Cholera Morbus inflammation of the Eyes by Dust and the fiery Temper of the Air; In the Rains, Fluxes Apoplexies, and all Distempers of the Brain, as well as stomach."²

1 C.S. I.1,53

2 *Bulletin, DHM*, II(4), 1964,p.248.

"Again in another place, he mentions the climatic conditions and fevers in Masulipatam are thus; "People were free from sickness during Summer but from May, with cooling showers, air grew foggy and Empyemas and fluxes were rifest."¹

Linschoten also refers to "the sickness and diseases in Goa, and throughout India, which are common, come most with the changing of the times and the weather"² The literary works of the period inform us that the people well-knew the fundamentals of the *tridōṣas* and they took care in dietetic habits, keeping in mind the seasonal changes.³ In the therapeutic procedure also, the physicians prescribed the wholesome food to be taken in addition to the drugs which were also intended to keep the *dōṣas* in balance.

In *Kāśīkhaṇḍamu*, the attack of *Viśajwara* and its consequences are described. A pilgrim when he was ready to take meals, head-ache, eruption of hair and chillness of the body started suddenly; neck became very painful; fever developed and he felt very thirsty. After this, he suffered from severe pain in all parts of the body due to the intensity of the fever as if he was bitten by several poisonous snakes. He laid down unconsciously and died later.⁴ Mallinatha Suri explained a disease known as *rājayakṣma* taking a reference from Vagbhata thus: "This disease (*rājayakṣma*) is preceded and accompanied by many diseases and is called *Rājayakṣma* (king of the diseases), *Kṣaya* and *sora* (consumption) and *rōgarāṭ* (king of the diseases). This affected, once upon a time, the Moon, the king of stars and the twice born. As this is a *rājan* and also *yakṣma*, it is called *rājayakṣma*.⁵ " *Āmajwara* is regarded as an unripe fever and it is advised not to take bath.⁶ In *Tāpajwara* (love-fever) also it is regarded

1 *Bulletin, DHM*, p.247.

2 Purhas, *Pilgrims*, x, p.253.

3 *Kasikhandamu*, IV-119; *Sṛgaranaśadham*, VI-124 to 133. & 140; *Amukta*. IV-280; 269; V-157.

4 *Kasikhandamu*, III-122 to 131.

5 *Sisupalavadha*, II-96.

6 *Ibid*, II-54.

as an unwholesome act.¹ People believed that *Cintājwara* cannot be cured by the therapeutic procedures. The indigenous literary sources and the foreign accounts also refer to many home-remedies prevailed in Andhradesa during this period.

Tavernier mentioned that there were no physicians in the villages and the common people cured their petty diseases in their homes only by taking the drugs given by elderly women.² Though this statement is not fully correct, we can not put aside the fact that the women were experts in curing the petty physical troubles like cold, cough, vomiting, sensation, head-ache, stomach-ache, pains of the body, children's diseases, ill-health of the pregnant women, the newly delivered women, etc.

Fryer observed the medicines in the *janapadas* and writes thus: "Here they will submit to spells and charms, and of the advice of the old women."³ Fryer also gives information about some simple home remedies like butter of 400 years standing "prized by gentiles as high as gold prevalent in old arches and sore-eyes one of which (tank) was opened for my sake and a present made me of its black stinking viscous balsom."⁴

"To correct distempers of the brain as well as stomach, the natives eat Hing, a sort of liquid Assafaetida, whereby they smell odiously. For all Lethargick Fits they use Garlick and Ginger, givern in Oil or Butter."⁵

It seems that Goa stones were in great popularity for their healing power in various diseases. They attracted the attention of the foreign physicians also. The Dutch, the Spanish, the American and the English physicians also accepted and extensively used in their practice in India. Fryer also refers to the uses and popularity of these medicinal stones in various diseases.⁶ Tavernier gave a vivid description of these

1 *Srngara Naisadham*, II-110.

2 Tavernier's *Travels in India*, p.231.

3 *Bulletin DHM*, II (4), oct.1964, p.250.

4 *Ibid.*

5 *Ibid*

6 *Ibid*

stones and their healing power especially in the serpent bites and against other poisons. He refers to the stones taken from the goats, cows and serpents which are mentioned as available in the province of the kingdom of Colconda towards northeast. He says that "the Portugals make great account this (cow's) bezoar, standing always upon their guard for fear of being poisoned."

For body pains and swellings people used the *Vāyu Tailas*, prepared themselves at home with the herbs available in the backyard of their home or in their fields. *Basavapurāṇam* mentions the herbs used in the preparation of the herbal oils and juices to massage the body of the patient suffering with pains and swellings caused by the aggravation of *vāta* in the body. They used the *agnikarma* also in these diseases.¹

To get relief from indigestion,, they used to take *tāmbūla* or betel adding other drug-substances like, camphor etc.² *Vēmana* prescribed the use of *tāmbūla*, a combination of betel leaves, areca nut and lime as a cure for the caries of the teeth.³ The foreign travellers like Abdul Razaaq, Paes referred to the above virtues of the betel containing areca nut and lime, Betel was used as a drug in many other incidents adding some other herbs to it.

The leaves and bark of neem tree were extensively used as drug-substances in preparing the home remedies. It is believed that the bark allevates the diseases caused by poisons, skin diseases, small-pox, etc.⁴ *Vēmana* says that it increases the lustra and complexion of the body and develops the strength of the body.⁵ The neem tree which was useful from top to the bottom in the field of medicine was praised by *Vēmana*.⁶ In the majority of medical preparations in the janapadas, the neem products were used in case of preputiatory activities at the time of epidemic diseases, delivery, influence of evil spirits etc. In the

1 *Basavapurāṇam*, p.77.

2 *Amukta*, V-93.

3 *VP*, 2875; *VV*, 2646; *V.N.P.R.*: 1015,

4 *Sukasaptati*, II-487

5 *V.P.* 2875; *V.V.*: 2646; *V.N.P.R.*:1015

6 *VP*: 3918

medical texts also, we find in many places the prescription of neem bark or other products as drug-substances.

FIRST-AID IN THE ACCIDENTAL STROKES

The people used to take immediate steps in case of any accidental strokes. In *Palnāṭivīracaritra*, when a woman was hit by the *bongaramu* (top) of *Balacandra*, her leg started bleeding, she fell unconscious and her clothes became wet by sweating. Then the people around gathered at the place where the accident took place and started immediately the first aid activities. First they sprinkled water on the face of the victim so that she would get consciousness. Some women poured *karpūra* (camphor) powder in her ears. They smeared a drug (which they prepared by grinding the camphor dust and musk) on the palms and the soles of feet. Just when they started consoling the other women not to worry about the patient, she regained consciousness. Then *Balacandra* gave her silk cloth for banding and arranged for effective medicines. He gave her 700 *māḍas* to get treatment.¹

In *Amuktamalyada* also we find the description of the first-aid activities.² When a man was severely injured by a band of robbers, there gathered many people to look after the needs of the victim. Among them some people went to call for a doctor who could sew the splitted skin; some way-farers put the ashes of the cloth on the wounds which were caused by the blows of the thieves on the head; some were blessing the people who gave the cloth tearing from their dress immediately after the request; some people went into the nearby village to bring some porridge to give to the patient.

At the time of cock-fights also, people used to keep ready some herbs, etc.,³ to make use of them in case of emergency as first-aid medicines.

1 *Palnativiracaritra*, SriRama Mudraksarasala (Madras, 1938), p.47.

2 *Amukta*, VI-85.

3 *Hamsavimsati*, III-212.

DISEASE OF EYE AND EAR AND THEIR TREATMENT

Ophthalmology was considered as a branch of *Salakyatantra*. There are said to be fourteen writers on Ophthalmology in ancient India, i.e., Susruta, Bhoja, Nimi, Kankayana, Gargya, Galava, Videha, Satyaki, Saunaka, Karalabhata, Cakahusyena and Kṛṣṇātrēya, Vagbhata and Madhava. But unfortunately, out of these fourteen writers only the works of Susruta, Vagbhata I and Madhava are now available. These works formed the basis for further research in the later periods all over the country extending from the *Setu* to the Himalayas.

A separate work on Ophthalmology written during this period in Andhradesa is *Nētradarpaṇam*. The author Pānakālarāya, states that eye is the most important among the *indriyas* and hence the physicians treating the diseases of eye get merit in this as well as the next world. Though he followed the traditional method in many respects in his work, he explained many new diseases and therapeutics.

Susruta gives a count of 76 eye diseases, of which ten are due to *Vata-dosa*, ten to *pitta-dōṣa*, thirteen to *kapha-dosa*, sixteen to vitiated blood (*rakta*); twenty five are caused by the united action of the three *dōṣas* (*sannipāta*) and two are due to external causes (visible or invisible). But later he added *kukunaka* as the seventy seventh.¹ Later Bhāvamīśra gave the number of eye-diseases as 78.² Pānakālarāya of medieval Andhradesa gives a list of 96 eye-diseases. In the beginning of the description of eye-diseases, Pānakālarāya gives a verse on *Karmavipaka* of the eye-diseases. Then after describing the 96 disease, the author gives the causative factors. The diseases mentioned in his work are:³

<i>Kāca</i> (red)	<i>Kāca</i> (white)	<i>Kāca</i> (black)
<i>Kāca</i> (yellow)	<i>Swētapātala</i>	<i>Raktapātala</i>

1 S S, VI.1.

2 *Bhavaprakasa*, Madhyamakhandā,

3 Dr. B.Rama Rao, "Netradarpanam", *Bulletin, IIHM*, IV(1), Hyd., (1974), pp.9-13.

<i>Piṣapaṭala</i>	<i>Divāṇḍha</i>	<i>Kṛṣṇapaṭala</i>
<i>Timira</i>	<i>Nētrapuṣpa</i>	<i>Niśāṇḍha</i>
<i>Jalāśraya</i>	<i>Atisrāva</i>	<i>Durmāmsa</i>
<i>Nētraśōdha</i>	<i>Nētraśūla</i>	<i>Nētralutika</i>
<i>Kṛṣṇapilla</i>	<i>Sukrapilla</i>	<i>Raktapilla</i>
<i>Nētrakāya</i>	<i>Raktagranthi</i>	<i>Nētrabudbuda</i>
<i>Nētrasūkṣmacalana</i>	<i>Nētracalana</i>	<i>Catvāri</i>
<i>Nētrabandha</i>	<i>Nētrabhagna</i>	<i>Nētrajāra</i>
<i>Nētramālīnya</i>	<i>Nētrārśa</i>	<i>Nēṭṭabhramaṇa</i>
<i>Nētraniścita</i>	<i>Nētrakhandā</i>	<i>Dwinētra</i>
<i>Ūrdhwārśi</i>	<i>Nētrāgni</i>	<i>Adhōdrṣṭi</i>
<i>Nētrapūya</i>	<i>Nētrakūṣṭa</i>	<i>Nētrapāta</i>
<i>Nētrōnmīlana</i>	<i>Nētranimīlana</i>	<i>Nētrārdhadrṣṭi</i>
<i>Nētramala</i>	<i>Nētragurtana</i>	<i>Mandadrṣṭi</i>
<i>Śuklapuṣpa</i>	<i>Raktapuṣpa</i>	<i>Kṛṣṇamandala</i>
<i>Agnigrandhi</i>	<i>Nētrātimala</i>	<i>Pitapuṣpa</i>
<i>Pakṣaghāta</i>	<i>Pakṣaśūla</i>	<i>Nētravalmiṇka</i>
<i>Pakṣaśadāha</i>	<i>Pakṣapakṣma</i>	<i>Pakṣaśōbha</i>
<i>Pakṣacalana</i>	<i>Pakṣāticalana</i>	<i>Pakṣajāta</i>
<i>Padmakāya</i>	<i>Padmakhandā</i>	<i>Padmārthuda</i>
<i>Jalāśrava</i>	<i>Nētrapārśvaśūla</i>	<i>Nētrapārśva</i>
<i>Nētrapārśvakhandūti</i>	<i>Nētrapārśvacalana</i>	<i>Nētrapārśvaśōdha</i>
<i>Nētraśarana</i>	<i>Nētrarōdha</i>	<i>Nētrapārśvarakta</i>
<i>Nētravilōkana</i>	<i>Nētraphalla</i>	<i>Nētrasphōṭaka</i>
<i>Nētragandhāgni</i>	<i>Duḥkhanētra</i>	<i>Nētrapuṣpa</i>
<i>Pakṣadurmāmsa</i>	<i>Nētrapipīlika</i>	<i>Durmadandha</i>
<i>Nētradurmāmsa</i>	<i>Vāta Abhiṣyandha</i>	<i>Nētrātirōma</i>
<i>Kapha Abhiṣyanda</i>	<i>Rakta Abhiṣyanda</i>	<i>Pitta Abhiṣyanda</i>

Pānakālarāya mentioned in the beginning that he would deal with nine methods of treatment, i.e., emplasters, medicines for application to be retained by bandages and also dietetics and eye ointments, *nasya* (nasal insufflations), medical ointments, surgical practices, medicines and glasses. But the first four only are found available now. Among them, the description of prescriptions of the ointments is very detailed. He gives the following 35 ointments against different diseases:

<i>Lakṣāṇjana</i>	<i>Vidruma</i>	<i>Akṣa</i>	<i>Gāruḍa</i>
<i>Sudarśana</i>	<i>Mahāgāruḍa</i>	<i>Śāstra-</i> <i>vallabha</i>	<i>Nētra</i>
<i>Āmalaka</i>	<i>Saindhava</i>	<i>Śankha</i>	<i>Tāra</i>
<i>Abhaya</i>	<i>Bhujanga</i>	<i>Śaśiprabha</i>	<i>Tūtha</i>
<i>Candraprabhāvaṭi</i>	<i>Lōha</i>	<i>Vrōdhacan-</i> <i>drōdaya</i>	<i>Laghunār-</i> <i>ikēla</i>
<i>Nayanāmṛta</i>	<i>Mahānārikēla</i>	<i>Marīca</i>	<i>Nīśa</i>
<i>Tilaka</i>	<i>Laghumarīca</i>	<i>Sphaṭika</i>	<i>Trikapuka</i>
<i>Kaṭaka</i>	<i>Sukumāra</i>	<i>Haridra</i>	<i>Tāmra</i>
<i>Gāruḍa</i>	<i>Rajata</i>	<i>Vyōṣa</i>	

These ointments might have been in use in the treatment of different eye-diseases in those days. The fact that wearing glasses also was in use in Andhradesa by sixteenth century itself, can be known from this work. But unfortunately the part which explains the surgical practices and glasses is not available now. Two prescriptions for *katlu* and *patlu* are well explained.¹

The literary works testify to the knowledge of the people in the methods of treatment of eye-diseases. They knew the diseases like *Kōḍireppa*, *Tappavōvuṭa*, *taḍikanṭhividhamu*, *poragappuṭa*, *novvi*, *mādatevulu*, *puvvuvaṭrilluṭa*, *mayilavaḍuta*, *durmāmsadōṣam*, *ayira*, etc.² *Panditaradhyacaritra* gives a list of 37 eye-diseases,³ which were known to the common people. They are: 1. *tappapoyinakannu*, 2. *taḍikannu*, 3. *porayagappinakannu*, 4. *baddukannu*, 5. *barikannu*, 6. *kōdreppakannu*, 7. *gruḍḍikannu*, 8. *broddukannu*, 9. *puvvupōvinakannu*, 10. *palakaṭṭinakannu*, 11. *pranguḍukannu*, 12. *krālu kannu*, 13. *nīrugāreḍukannu*, 14. *prondakannu*, 15. *poribobussukannu*, 16. *mīṇḍakannu*, 17. *pekkumrādalakannu*, 18. *bolumannu*, 19. *pron-gavōyinakannu*, 20. *tūṭagattinakannu*, 21. *dūlagonkannu*, 22. *mayilakannu*, 23. *masumasukanikannu*, 24. *airakannu*, 25.

1 B.Rama Rao, *Netradarpanamu*, Bulletin, IIHM, IV(i) (Hyd.1974) p.13.

2 *Basavapurānamu*, p.74.

3 *Panditaradhyacaritra*, Mahimaprakaranamu, Telugu university, Hyd, 1990, pp.185-186.

pāyakadareḍikannu, 26. *tōṭavōyinakannu*, 27. *toluguḍukannu*, 28. *tītakannu*, 29. *timiramu*, 30. *raktadōṣam*, 31. *durmāmsadōṣamu*, 32. *vāyudōṣamu*, 33. *paṭalamu*, 34. *dūrdarśi*, 35. *kṛṣṇakāsa*, 36. *atirak-takāsa* and 37. *swētakāsa*.

The people applied the drugs in various forms such as *katuka*, *anjana*, *varti*, etc., to the diseases according to their past experience. *Kālahastīmāhātmyam*¹ informs us that the people tried to cure the minor diseases of eyes following the methods like tying the *Cassia(tangēḍu)* leaves on the head, applying an *anjana* (collyrium) prepared by grinding the *recaki* and lime juice, or by applying the juice of *Carissa Carandas* flowers (*kalivepuvvulu*), or congealed ghee or curd-wick, or breast-milk after closing the eye. These methods of treatment which were followed from generation to generation, can be still found existed in the villages.

About the ear also, as the literary sources inform us, the people took much care. Even when a woman was pregnant, the other elderly women in the family or friends or relatives used to take precautions to save the infant from *cikucevi*.² After delivery also, they might have taken care of the ears of the infant. In *Kāśīkhandamu*,³ it is also said, water, though very clean, creates pain in the ears when put in. Almost all the scholars from Śārṅghadhara to the author of *Yōgaratnākara* explained many kinds of ear-diseases and gave prescriptions. Especially, Indrakantḥi Vallabhācārya gave a vivid description of ear-diseases and explained many medicines for cure in *Vaidyacin-tāmaṇi*.⁴

DANTAVAIIDYA

Manucaritra informs that *Dantavaidya* was taught as one among the eight branches of Ayurveda.⁵ Vallabhacarya, the author of *Vaidyacin-*

1 *Kalahastimahaatmyamu*, III-110.

2 *Simhasana Dwatrimika*, I-33-6.

3 *Kasikhandamu* IV-98.

4 *Vaidyacinamani*, Part II, pp. 538-548.

5 *Manucaritra*, V-15.

tamani, described 21 diseases of teeth and their treatment.¹ He prescribed surgical treatment in case of a disease known as Vaidarbha² and he prohibited surgical treatment in treating the disease known as Dantavidradhi.³ In all other diseases, he gave general herbal and alkalic prescriptions. Basavarāju explained the root-canal treatment in case of *Nāḍīvraṇa*.⁴

Kṛṣṇadēvarāya who compared the kingdom with the human body advised to maintain the teeth with care. He compared the importance of the teeth in the body with that of the brahmins who contribute for the welfare of the kingdom.⁵ The dharmasastras lay down that one should brush his teeth with a stick which is as thick as the small finger, ten times the length of the same finger. And it should be with its skin but without any hollow.⁶

In these days eating betel was very common among all classes of people. Especially it was more in case of courtesans and prostitutes. It was because of this habit, their teeth became red. That's why they tried to get back the natural white colour by cleaning the teeth with hard things like husk, paddy,⁷ sand, coal, stone, etc. But it was considered not a good habit. By doing so, enamel on the teeth will pass away. Vēmana who observed these practices in the society, advises that sand, coal, stone, iron, skin and dust should be prohibited in the cleaning of the teeth.⁸

It seems that covering the broken teeth with caps also was known to the physicians in those day, though it was not described in the medical texts. There is a very popular story which mentions that Rāmakṛṣṇakavi once got one of his teeth broken when Mukku Tim-

1 *Vaidyacintamani*, II, pp.511-15.

2 *Ibid*, pp. 525-30

3 *Ibid*, p.527.

4 *Basavarājīyam*, p. 905.

5 *Amukta*, IV-270.

6 *Kasikhandamu*, V - 205.

7 *Amukta*, I-60.

8 *VP* : 529; *VVN* : 727.

mana kicked him with anger. A cap was arranged on the broken tooth. It is mentioned that the cap was made with the horn of a deer.¹

Tāmbūla was advised to be taken after meals for the health of teeth. The medical texts also suggested that it could strengthen the teeth.² Linschoten refers to the habit of "chewing of leaves of a herb called betal with *chalke* and *Arrequa*". He mentions, "They say it preserveth the teeth and keepeth them sound, good for the *mawe*, and against a stinking mouth and evil breath."³ Abdur Razaq also observed the merits of betel and writes that it "disinfects the breath and strengthens the teeth."⁴ Vēmana also prescribes the use of *tāmbūla*, a combination of betel leaves, area, and lime, is the best for caries of the teeth.⁵

DISEASES OF CHILDREN

In *Parahitasamhita*, it is said that if the mother by ignorance suckle her child even after her re-pregnancy, the child will get caught, loss of epitite, vomitings, drowsiness, weakness, disrelish for food and drink, etc. This disease is known as *Pārigarbhika*.⁶

Parahitasamhita suggests the treatment of 'curukulu' (cauteries) when the child is suffering with the swollen stomach due to wind, stomach-ache and diarrhoea.⁷ Till recently, the elderly women in the villages who were experts, used to cauterize on the stomach of the infant with an iron-needle to prevent the troubles of the stomach.

1 *Kavijivitamulu*, p.231.

2 *Bhavaprakasa*, Purvakhanda, IV, v.184.

3 *Bulletin, IHM*, I (1&2), 1971, p.38.

4 B.A.Saletoore, *Social and Political life in the Vijayanagara Empire*, Vol.II, p.308; Elliot, *Hist.of India*, IV, p.114.

5 *VP*: 2875.

“నాటపు పుట్టెల్ల | నొప్పి లేకుండగా
నొప్పి పుట్టె సన్న | మోషధముగ
లేట్టకుండ వెన్న | తేమకాత వేయరా || ౧౩౪ ||”

6 *Sridhanwantari*, October, 1951, pp.765-66.

7 *ibid*.

Another general source of disease in children is teething. When the child starts getting teeth, generally some troubles like fever, diarrhoea, etc., start. The teeth start appearing in fifth month in case of a healthy child or otherwise they may appear in the eighth month also. Neither Caraka nor Susruta referred to teething as a cause of diseases in children. In *Parahitasamhita*, Srinatha Pandita says that these diseases which appear in children at the time of appearing teeth will be cured naturally without using any medicine. He further says that hence the diseases of infants should be treated in consideration with the observation of the stages of growth of the child.¹

Generally the diseases of children were attributed to the demoniac or *graha* influences in ancient and medieval times. In ancient period, almost all the scholar-physicians accepted and advocated these magico-religious concepts. The *Uttarasthāna* of *Susruta Samhita* contains the description of the nine different diseases of children caused by nine malignant beings, the *grahas*.²

These beliefs continued even to the medieval days. The people of medieval Andhradesa believed that the evil-spirits or *navagrahas* affect the person of an infant when the instructions or guidelines that were revealed by the elders were not followed by the mother or the midwife, or if the benedictory rites were not performed, or if the *prasutigrha* was in an unclean state, the demons would appear for the purpose of getting proper respect and worship. To avert all these evils, the people in Andhradesa worshipped certain deities. We find the names of the deities in this area as Kūnalamma, Bālamma and Er-rapolamma, etc., in the contemporary Telugu literary works.³ In *Bālagrahacikitsa*, the names of the deities which attack the infants are given.⁴

The ancient Indian physicians believed that almost “all the important diseases of childhood, meningities, encephalities, the eruptive

1 Sridhanwantari, Oct, 1951, pp. 765-66.

2 S S, Uttarasthana, 28; O.P. Jaggi, *Folk Medicine*, Intdn. xvii.

3 Rasikajananamanobhiramamu, III-174.

4 A Des. Cat. Tel. Mss., GOML, No. 2429, p. 2722.

fevers like small-pox, chicken-pox, measles, diarrhoea and bowel affections of all varieties, nephritis, pyelitis and infantile cirrhosis". These beliefs were widespread all over India and were continued from generation to generation and took deep roots. That's why we find these beliefs, though not so superstitious, prevailed among the common folk even today in the villages.

There are many sources both epigraphical and literary to prove the existence of the belief in the supernatural elements as the cause of many diseases. But many physicians of medieval Andhradesa did not seem to have accepted the magico-religious concepts in the science of medicine. They observed the right and rational causes for the appearance of the diseases in children. Except a very few works such as *Bālagrahacikitsa*, almost all the medical works gave rational and scientific causes for the occurrence of the diseases and prescribed drugs like *kaṣāyas* (decoctions) or *nasyas* (snuff). Bāhaṭācārya, Basavarāju, Indraganṭi Vallabhācārya, Srinathapandita, etc., explained the causes of the above diseases in consideration with the theory of tridosa and the hygiene or other-wise conditions prevailed in the surroundings of the area.

Basavarāju explains the characteristics of a disease known as 'cavva' which appears in the infant children thus: "the body of the child gets swelling, the skin in layers comes out, the hair becomes red and serum oozes constantly from the skin." He gives the cure of this disease thus: "The mother of the child should take in 1/4 ser of the juice taken from the dried skin of the *karivēpa* (*Murraya Koringii*) plant mixed with the powder of black pepper." He prescribed some other medicine for both the mother and child which needs the black rice and oil to prepare and the mother was advised to take a plain diet.¹

The mothers also were acquainted with the general diseases of children which they called by the names such as "*arimi*, *kōva* (kodava), *angitimullu*, *cantikriya*, etc. For the cure of these disease, they

1 *Basavarajiyamu*, p.59.

depended only on medicines.¹ Previously 'Cantikriya' was considered as the disease caused by the evil spirits.

Indraganti Vallabhācārya, the author of *Vaidyacintāmaṇi* also prescribed drugs to a *jvara* known as "*Bhūtajvara*". Though he followed rational diagnosis and treatment of this disease, he used the old name which was popular in the society. He prescribed *nasyas*(snuffs) prepared with the gum of the 'ippa' tree, pepper, saindhavalavana (the salt brought from Sindh), long-pepper, *vasa*(sweet flag; *Acorus calamus*) or with dry-ginger, long-pepper, black-pepper in equal proportions and eight leaves of the Basil plant.²

Various palm-leaf note books which are available in the Oriental manuscripts libraries written in Telugu by the country-physicians and literate laymen also contained many herbal prescriptions for the diseases of the children eventhough they seem to have had faith in the traditional beliefs with regard to the causes of the children's diseases. They gave the reason of what the tradition laid down along with their own notions after finding out in their experience the real scientific cause. With regard to the method of treatment also, they depended on their previous experience as a professional healer. Their knowledge of fruits, roots and other herbal and animal substances was really very great and was much appreciated by the foreign travellers also.³ Especially, the women were observed as experts in preparing various kinds of drugs. They with their own experience and on the advice of the elderly women, used to heal the diseases of the infant or the newly delivered woman at their homes.

TOXICOLOGY

Viṣavaidya or toxicology that prevailed in Andhradesa was much praised by the foreign travellers. The portuguese when they came to

1 *Basavarajiyamu*, p.59.

2 *Vaidyacintamani*, Part I, pp.109-110.

3 Tavernier, *Travels in India*, pp. 368 to 372.

South India were very much worried about the bites of the poisonous snakes, scorpions, etc. In the beginning, they depended on the prescriptions of the Brahmin physicians. Later they came to know of a particular practice in this region in case of the bites of serpent or other poisonous insects. It is the use of medical stones such as bezoar, porcupines-stone and serpent-stone. He says that bezoar, which "comes from the province of the kingdom of Colconda toward the northeast" and which is taken from a wild goat as good against poison. He also refers to the bezoars taken from cows also. "the Portuguese make great account of this bezoar, standing always upon their guard for fear of being poisoned." He further says, "there is another stone in great esteem, that is called the porcupines-stone, which that creature is more precious than bezoar against poison. There is the serpent-stone not to be forgotten and that the stone is rather a composition of certain drugs. Whatever it be, it is of excellent virtue to drive any venomous creatures. If the person bit be not much wounded, the place must be incised, and the stone being applied, will not fall off till it has drawn all the poison to it. To cleanse it, you must steep it in woman's milk, or for want of that, in cow's milk, after the stone has lain 10 or 12 hours, the milk will turn to the colour of an apostemated matter."¹ At the end of the century, the physicians appointed by the Portuguese also adopted this procedure into their system also.²

Linschoten, the Dutch traveller of sixteenth century, while writing about the rhinoceros and its virtues in the medical ground, mentions that its "horn, teeth, flesh, blood, claws and whatever it has both without and within his body, is good against poison and is much accounted of throughout all India."³

1 *Tavernier's Travel in India*, pp. 370-71.

2 D.V.Subba Reddy, "British Traveller of XVII Century" *Bulletin, IHM*, II(4), 1964, p.242.

3 D.V.Subba Reddy, "A Dutch Traveller of 16th c". *Bulletin, IHM*, I, (1&2), 1971, p.36.

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3 D.V.Subba Reddy, "A Dutch Traveller of 16th c". *Bulletin, IHM*, I, (1&2), 1971, p. 36.

It seems that fear of poisoning was prevalent in all classes of people. The kings were very much careful every moment of being poisoned. They appointed “*Prāṇācāryas*” to save themselves against it. Linschoten writes that “Poisoning, witchcraft, and such like, whereby some loose their lives, in their daily exercise, and very common (with them).”¹ In another place, he refers to the poisons employed by the women.² To save a person from these poisons, the physicians suggested the method of giving something to the patient to vomit the venom. Usually bitter things like the juice of soap-nuts were given.³

Basavarājū gave a vivid description of various kinds of venoms which were in use to apply on the enemies and their antidotes.⁴

Vēmana says that if a person is bitten by a (mad) dog, he should at once be caught, controlled and the juice of lemon has to be massaged on the head of the person.⁵ Here he uses the word *kūyanīyakapaṭṭi* which means that the treatment should be done before the signs of hydrophobia are developed. The medical works also give the same opinion regarding the treatment of mad dog bite. Even now, the village people first do this treatment. They apply the juice of Kakara leaves grinding with a copper coin. He also mentions that the bark of neem tree alleviates the diseases due to poison.⁶ The medical texts also mention *nir̥mba* as *viṣahara*.⁷

1 D.V. Subba Reddy, “A Dutch Traveller of 16 th c”, *Bulletin, IHM, I*, (1&2), 1971, p.40.

2 *Ibid.* p.38.

3 *Vaidyacintamani*, II, p. 752.

4 *Basavarajiyamu*, pp.964,965 & 969.

5 *VP*: 1395.

“మీకు గొర్రెనెసి | మాయమింక పట్టి
 ప్రకర విలగదన్ని | పండుచెట్టి
 నివ్రు కొయి దెచ్చి | ఇత్తిప రుద్ది
 గుర్రు మోము తినును | మరుగు మేము”

6 *VP*: 4559, 3918.

7 *Bhavaprakasa*, Purvakhandā, V-91.

For the snake-bite also, there were many prescriptions as well as *mantras* (incantations). The physicians were experts in taking out the venom which entered into the body by the serpent-bite by squeezing the poison through horn-pipes. First they used to cut around the place with the chalk and then with the help of horn-pipe, they used to squeeze and takeout the venom from the body. If the person fell unconscious, the physician would try to wake up by sprinkling sacred water on his head, by applying herbal salves to the eyes, etc. They used to keep some herbs near the nose of the patient to smell so as it can counteract the poisons. Sometimes they used to massage with the juice of particular herbs on his head as an antidote to the venom. If his cheeks become stiff and tucked, then the physicians duty was to open the mouth with the help of a rod and to put the necessary drug into it.¹ The physicians staunchly believed that the herbs used for this purpose should be collected on certain awspicious days on which they were believed to be more effective and were intended to collect with certain *mantras*.² The physicians who practised the *visavaidya* were expected to maintain high moral character. All the *parahita* physicians were experts in toxicology also. They knew how to make the venomous snakes and other insects remain spell-bounded with the help of various other herbs and drugs which were endowed with magical powers. Linschoten writes about Dombaras who seemed mostly in the Telugu and Karnataka areas that they were very skillful in bewitching the snakes and "in preparing of poisons, wherewith they doe many strange things, and easilie poison each other."³ These people who spent their life with these venomous creatures might have been the experts in *visavaidya* to treat the common people.

For a man's bite, people used to rub camphor on the wound perhaps as an antiseptic drug. For the wounds caused by nail scratches, they used to put a paste prepared after grinding civet and

1 *Pancatantram*, I-120.

2 *Hamsavimsati*, V-314.

3 Linschoten, *Purchas, Pilgrims*, X,p.247

saffron.¹

ELEPHANTIASIS

Linschoten describes a disease by which people get “Elephantes legge”, while writing about the coast of Coramandal and the kingdom of ‘Bisnagar’ (Vijayanagar).² In this context, he narrates a story with regard to St. Thomas in Mylapore, and the miracle which was performed by St. Thomas to get permission, from the king to build a church there and how the local people put him to death. He says: “They say that the (stocked and) progeny of those that slew him, are accursed by God (and plagued with a certain disease), which is that they are all borne with one of their legs and one foote from the knee downwards as thick as an Elephantes legge”.

John Fryer, the British traveller of mid seventeenth century while writing about Madraspatnam describes the existence of this disease there. He also mentions the same cause,³ mentioned by Linschoten as is believed by the people around Mylapore. But none of the Indian writers in the Science of Medicine referred to this cause. Even though Indrakanthi Vallabhācārya mentioned the *karmavipāka*, he did not give this cause. Perhaps it might be the belief of the people lived around St. Thomas area, where the disease might have appeared only after the assassination of St. Thomas. The Christian missionary afterwards might have utilized the incident to create fear in the natives who were against the propagation of Christianity and to propagate the miraculous powers of the Christian saints. The culprits, with repentance, converted into Christianity.

Basavarājīyamu and *Vaidyacintāmaṇi* describe the characteristics, the *karmavipāka* and the treatment of this disease. They called it as “*slīpada*”.⁴ Indrakanthi Vallabhācārya, the author of *Vaidyacintāmaṇi*

1 *Radhikasantvanamu*, II-7.

2 *Bulletin, IHM*, (Hyderabad, 1971), I(1&2), pp. 35-36.

3 *Bulletin, DHM* II(4) Oct. 1964, p. 247.

4 *Basavarājīyamu*, pp. 927-28 & 1003; *Vaidyacintāmaṇi*, pp. 395-401.

says that this disease may also be concentrated on the other parts of the body such as hands, ears, eyes, penis, lips and nose.¹ He diagnosed different kinds of this disease caused by the imbalance of *vata*, *pitta*, and *kapha*. He further expresses his opinion that this disease occurs in such places where the country is always cold in all seasons, and where people use very stagnant water.²

VENEREAL DISEASES

All the medical works of ancient and early medieval India explained many diseases of the secret or genetic organs of the human body, but did not mention the disease known as "*syphilis*". The later works written from 16th c. onwards contain the description of this disease on the name "*phirangirōga*". Bhāvamiśra said that this disease was caused and spread in our country by the Portuguese.³ The Portuguese established their trade links with the chiefs of Bhatkal⁴ and Honavar⁵ and then came into contact with the rulers of Vijayanagara in A.D. 1506, when Viranarasimharaya was ruling the kingdom.⁶ It was during the reign of Krishnadevaraya that they developed their trade relations with the kingdom of Vijayanagara.

In the beginning, the Portuguese were called as *Phirangis*.⁷ These *phirangis*, especially the soldiers came alone leaving their families in the home-country. In the words of Linschoten, they were used to "much company of women, because that land is natural to provoke them there unto, as also the most part of the soldiers by such means have their living and their maintenance, which often times costeth

1 *Vaidyacintamani*, pp.395-96.

2 *Ibid*, p.397.

3 *Bhavaprakasa*, Madhyamakhanda, p.806.

4 Barbosa, I, pp. 183-197.

5 *Historical Inscriptions of South India*, p.235.

6 *Further Sources of Vijayanagara History*, II-103.

7 John Phillips Esquire(Tr), *Tavernier's Travels in India*, Calcutta, 1905, p.220.

them both life and limme".¹ It seems that there was no protection for the native women in the places where the Portuguese resided. The description of the strange customs in these areas by Linschoten also helps us proving this fact. He describes a custom in Aracan and Goa thus: "There are likewise some among them that doe sowe up the privie member of their female children as soon as they are borne, leaving them but a little hole to avoid their water, and when she marrieth, the husband cutteth it open (and maketh it) as great or as little as hee will, which they with a certaine, oyntment or salve can quickly heale. I saw one of those women in Goa whom the surgeon of (my Mayster) and Archibishops house did cut open."

He might have thought that the people of his country may not believe his accounts. So he writes "Men would Judge all these things to be fables, yet they are most true, for I doe not onely knowe it by the daily trafficking of the Portigalles out of India thether, but also by the *peguans* themselves, wherof many dwell in India, some of them being Christians, which tell it and confesse it for a truth".² These two things mentioned by Linschoten suggests the fact that there was no protection for the women due to the villianous activities of the Portuguese soldiers. It was because of their ill-conduct and lust for sensual pleasures, the venereal disease known as *phirangirōga*, which was not known to the Indians till then, started spreading. As it spread because of the *Phirangis* (Portuguese), it was called as *phirangivyādhī*. According to the scholars in Medicine, the disease and its cure were first explained by Bhāvamiśra of 16th c. A.D. Bhāvamiśra referred to the herb called *Phirangicekka* or *Cinījam*.³ It was brought to India from China by the Portuguese. With regard to the spread of syphilis in the society, Venkaṭanātha, the author of *Pancatantra*, gives a reference. He described the symptoms and ailments of the victims and

1 D.V.Subba Reddy, "A Dutch Physician of XVI century on Indian Drugs", *Bulletin DHM*, 1965, III(3), p.176.

2 D.V.Subba Reddy, "A Dutch Traveller of 16th Century", *Bulletin, IHM*, I(1&2), 1971, pp. 36-37.

3 *Bhavaprakasa*, II, pp.805-807.

named the disease as *Savābhavāni*.¹ It indicates the following facts: The physicians realised the importance of eradicating the spread of syphilis. For this, the disease should not be concealed out of fear or impending social dishonour. Neatness was observed as the most important requisite to escape from the evil consequences. As such, the physicians described it as a *sakti* and named it as *Savābhavāni* to give moral courage to the patients to approach the physician without fear or shame and to maintain neatness of the effected parts. Linschoten writing about the disease mentioned that this disease did not frighten the people nor did the people felt it as a shameful thing to have become victims twice or thrice. He gave a vivid description of the treatment of the disease by the natives in a unique manner with the root-china.²

The Andhra physicians identified the characteristics of the disease with minute variations, named them and prescribed medicines. The author (unknown) of *Navaratnākara* explained twelve kinds of syphilis, viz., *maṇḍala*, *paṭala*, *dadhru*, *spuṭita kuṇḍala*, *swēta kuṇḍalika chidra*, *raktakuṇḍalimaṇḍala*, *grandhimōduga vāta*, *sushkam kēśanāśanam*, *śarīra nīlavarna*, *dhiganāciṭṭa phirangi*, *bokanā* and *aḍḍagaddalu*. All these were named according to the local usage. Śarabharāju observed deeper into the characteristics of the disease and identified some kinds of syphilis spread in the society. He described 18 kinds of syphilis, viz., *kharjū sava*, *tilakālika savā*, *barbara*, *caccu*, *ṭākisavā*, *vipāṭikā*, *vandhyasavā*, *sukravarshinī savā*, *nakhārti savā*, *pāmā*, *bokhanā savā*, *rētāntika*, *citra savā*, *sushka savā*, *dadhru savā*, *kāma savā* and *vispōṭikā savā*.³

John Fryer who visited the Canarese country at the end of the seventeenth century writes about the venereal diseases and the use of mango as a herb against these diseases thus: "The Diseases here are Epidemical, unless Plague Veneris be more Endemial, for which at

1 V.SankaraSastri, *Ayurveda Itihasamu*, (Tel) p.132.

2 D.V.Subba Reddi, "A Forgotten Chapter in the History of Syphilis in India in XVI Century", *Bulletin IHM*, 1972, II(2), pp.95-97.

3 V.Sankara Sastri, *op.cit.*, pp.134-35.

this season they have a noble and familiar remedy the Mango (which they have improved in all it(s) kinds of the utmost perfection) being a sovereign medicine; they are the best and the largest in India, most like a Pear Plum, but three times a big, grow on a tree nearest Turpentine, and pickled are the best Archars to provoke an Appetite; when ripen the apples of Hisperides are but fables to them, for the taste, the Nectarine, Peach and Apricot fall short, they make them break out, and cleanse the blood, Salivate to the height of Mercurial Arcanaes and afterwards fatten as much as Antimony, or Acorns do Hogs; these and Sarsa being their usual Diet.¹ In *Vaidyacināmāni*, Vallabhācārya also prescribed the skin of mango-tree in the treatment of venereal diseases.² Trimallabhaṭṭa, in his work *Bṛhadyōgataranginī*, explained many prescriptions against Syphilis. The author of *Yogaratanakara* called the *phirangirōga* with the name "*Candrakavraṇam*". He too gave a number of prescriptions for the cure of this disease. Thus it is clear that the medical scholars of medieval Andhradesa were very alert in observing and finding out the new diseases and in discovering the methods of cure. They gave many prescriptions with different kinds of herbs. As a result of it, the local physicians or the patients could get any group of the herbs easily. In addition to the herb China-root, the *rasa* medicines of the *Agasthyasampradāya* also were much esteemed in the cure of these diseases.³

The common people also took steps to escape from the attack of these diseases. From the writings of Linschoten, we come to know that the people did not try to conceal these secret diseases. They considered it a common disease that needs immediate treatment and they found nothing shame in it to be concealed or hidden. The prostitutes also seem to have taken steps against these venereal diseases. *Bahulāśwacaritra* of 16th c. mentions that a physician, who learnt *Rasa* system of medicine, was employed in the house of a prostitute.⁴

1 *Bulletin IHM*, II(4), 1964, p.249.

2 *Vaidyacināmāni*, II, p.458.

3 *Bhavaprakasa*, II, pp.806-10.

4 *Bahulaswacaritra*, V; Srikrishnarayandra Saṁhita Vijnana Sarwaswamu, p.386.

SURGERY

In Indian medical system, surgery is known as "*Śalyatantra*". It is derived from the root '*śal*' or '*śval*' which means to move quickly. "Foreign bodies of every kind are denoted as '*salya*', but specially refers to the arrow, which was the commonest and most dangerous foreign body causing wounds and requiring surgical treatment. A '*salya*' usually acts as an impending or abstracting agent to the entire organism and hence the science which deals with its nature and characteristics is called "*Śalyatantra*",¹ From the beginning, there existed two recognised schools of medicines, that of Ātrēya, of medicine proper, and that of Dhanwantari, of surgery. Surgery was divided into two kinds, '*salya*' and '*śālākya*'. Their scope is defined as follows: *Śalya* treats of the extraction of external substances accidentally introduced into the body, such as grass, wood, stones, earth, iron, fragments of bricks, bones, hair, nails and arrows; of pus and retained secretions and of the foetus from within the womb. It teaches also the use of blunt instruments, cutting instruments, caustics and the actual cautery, together with the diagnosis and treatment of inflammation. *Salakya* treats of diseases of the ears, eyes, mouth, nose and other parts of the body above the clavicle."²

In the medieval days, attending the wars and getting wounded was a common thing. During the wars, physicians might have been frequently waited upon to attend the wounded. Both indigenous and foreign sources inform us that all kinds of facilities were provided in the military camps.³ Hence it is doubtless to state that the army might have been accompanied by the doctors who were trained in surgery and medicine. Laxmanapandita, the author of *Vaidyavallabha* mentioned in his work that he attended the wars waged by Bukkaraya II⁴

1 P.kutumbaiah, *Ancient Indian Medicine*, p.144.

2 S.S., I-1.

3 Amukta, IV-269; *Sringara Sakuntalamu*, IV-105. *The Vijayanagara Empire*, p.110.

4 *Bulletin, IHM*, 1972, vol.II(2), p.61.

In *Sivarātrimāhātmyam* of Srinatha, a work of 15th century, the objectionable deeds of Sukumāra are mentioned in a verse. Two such things are that he used to respect the alchemists and show interest in the art of surgery.¹ It gives scope to think that these two sciences i.e., alchemy and surgery were not studied by the people coming from respectable families. But a keen observation into the fact proves that it is not fully correct. There are many sources to prove that Ayurveda was studied with its eight branches among which surgery was one. Peddana, the poet of sixteenth century, also refers to surgery as one of the branches studied by the Ayurvedic students.² In *Haravilāsamu*, Lord Dhanwantari is described as emerging from the churning of the ocean of milk, for the health and well-being of all diseases, with leeches and *haritaki* in the hands.³ *Haritaki* and leeches indicate the two branches of treatment, medical and surgical respectively. This indicates the equal importance given to the surgical method along with the medical procedure in the treatment.

The literary sources inform us that the doctors were trained in surgery also and they were perfect in removing ulcers and other diseased parts of the body by operating them.⁴ They had the skill in extracting the arrow-shafts entered into the body and fragments of swords which were broken and remained in the bones of the wounded. They knew how to adjust the dislocated joints and to cure the wounds by sutures and tight bandaging to promote reunion.⁵ There are references to *Sādhāraṇakarāṇi*, *Sāvāṇṇyakarāṇi*, *Sanjīvakarāṇi* and *Viśālyakarāṇi* in the contemporary literary works.⁶ It was said that by *Sāvāṇṇyakarāṇi*, one could get brightness; by *Sanjīvakarāṇi*, one could get consciousness from fainting by *Viśālyakarāṇi* could be possible to remove the fragments of the armaments from the body of the

1 *Sivarātrimahātmyam*, III-113.

2 *Manucaritra*, V-15.

3 *Haravilasamu*, Vi-83 & 84.

4 *Bhagavatam*, VII-188.

5 *Bhaskara Ramayanamu*, Yuddha Kanda, 1097, 1098.

6 *Ibid* 1603.

wounded; by *Sandhānakaraṇi* the fractured bones and departed parts of the body could be united and restored to life.¹

The surgeons carried out surgical operations after making the patient unconscious. They used to give anaesthetics like *cokkupōḍi* and *kaligoṭṭupōḍi*. Sometimes they used to hypnotise the patient so that the pain could not be felt by the patient. The Kondapaka inscription² of the period of Ganapatideva of Kakatiya dynasty refers to a scholar named Ādityāmātya, who had the title *Cittavaśīkaraṇa mantra siddha* (the person who is an expert in hypnotism). Likewise, the Parahita-carya mentioned in Kaluvaceru grant³ also is mentioned as *Cittavaśīkaraṇa mantra siddha*. This grant also informs us that the surgeons before taking up the operation used to hypnotise the patient. One Parahitācārya, an ancestor of the donee Parahita, is said to have successfully operated and relieved a snake from pain which was suffering with frog-bone stuck up between its two jaws.⁴ Some surgeons used the anaesthetic powders like '*Cokkupōḍi*' to make the patients unconscious. These anaesthetics were available everywhere in the country.⁵ Literary sources and foreign accounts inform us that these were extensively used by women and robbers also⁶ to achieve their aspirations. Linschoten refers to a medicine which makes a man, if used, like a dead man.⁷

In obstetrics, women also took up surgical methods if needed.⁸ Though we do not find any evidences available to prove that these methods were extensively in use in the society, we can surmise that the women-experts in obstetrical surgery might have been appointed in the royal harems. Paes narrates,⁹ "within, with these maidens, they

1 *Parijatapaharanamu*, IV, 49.

2 *Bharati*, Sept. 1986, pp.9-13.

3 *Andhra Sahitya Parishat Patrika*, Vol.II, (1), pp.93-103.

4 *Ibid.*

5 *Ushaparinayamu*, III, 58.

6 *Pancatantram* III-199; *Simhasana Dwatimsika*, X-123.

7 D.V.Subba Reddy, "A Dutch Traveller of 16th Century" *Bullein, IHM*, Vol. I(1&2), 1971, p.38.

8 *Yogaramakaram*, Introduction, p.ix.

9 *The Vijayanagar Empire*, p.30.

say that there are twelve thousand women; for you must know that these are women who handle sword and shield, and others who wrestle, and others who blew trumpets, and others pipes, and other instruments which are different from ours; and in the same way they have women as bearers(boois) and washing folk and for other officers of his household." Though Paes did not mention specifically the existence of midwives or the women who knew medicine we can take it that they might be there might be there in "other offices inside the gates." Kūcimanci Timmana of 17th century refers to a maiden who looks after the health of the princess in the harem.¹ *Simhāsanad-wātrimśika* (15th century) gives a hint to an incident of taking out the child safely by surgical operation in the harem.²

In ancient India, blood-letting was frequently practiced. "The means of withdrawal of blood were leeches, cupping, sacrifice or venesection. Indians were the first to use leeches for blood extraction. This was considered the mildest method".³ The fact that Lord Dhanwantari is depicted in the literature and art as holding leeches in one of his hands also proves the fact that the method of bloodletting by applying leeches. But Tavernier, the French traveller of 17th century also mentioned that the Indian doctors were not experts in *Chirurgie* (surgery). He described an incident of bloodletting to Abdullah Qutub Shah, the king of Golconda by a Dutch Chirurgion (surgeon).

He narrated how the surgeon had performed the venesection at four places under the king's tongue to cure his head-ache. The surgeon was advised by the court-physicians of the king not to let more than eight ounces of blood. He also mentioned that "the young queen and the Queen-mother also who resolved to be let blood too" and the surgeon performed it.⁴

Based on the writing of Tavernier, we cannot come to the conclusion that Indian doctors were not capable of taking up the surgical

1 *Rasikajanamanobhiramamu*, IV-157.

2 *Simhāsana dwātrimśika*, I-166.

3 P.Kutumbaiah, *Ancient Indian Medicine*, p. 162.

4 Tavernier, s "Travels in India", pp.232-234.

operations. Many doctors in 17th century also were experts in surgery, attending the war camps. Some doctors like Panakalaraya were experts in eye-operations also. There are still now some people who cure the piles by surgical methods with traditional technique which they have inherited from their ancestors. Then the doubt arises why the king of Golconda called for the Dutch surgeon while there were court-physicians who could do such things. Perhaps, the fame of the Dutch doctors which attracted the attention of the Portuguese might have also created a good impression in the mind of the Golconda ruler, who generally much appreciated foreign things. Not only this, the Dutch physicians were more famous, it seems, specially for their talent in blood-letting. Sometimes they did it even if there was not much necessity. The quantity of blood they used to extract was also seems to be very high that the Portuguese feared so much and complained the same thing to their governor of the region. About it, Fryer writes, "The physicians here are great Bleeders, insomuch that they exceed often 'Galen's Advice, an deliquium, in Fevers; hardly leaving enough to feed the Currents for Circulations; of which cruelty some complain invidiously after Recovery.'" It is because of this reason that the Golconda Sultan got the diagnosis done by his court physicians. Then only he called the surgeon and told him that he should let blood from four places and not more than 8 ounces of blood, should be let out. Much care was taken during the operation to look after whether the surgeon would extract more blood. The gold vessels which were brought to take the extracted blood were weighed before hand so that the quantity of blood as fixed previously might be weighed after the operation. The surgeon performed the operation in the presence of the native physicians.

The physicians of South India were not great bleeders like the European doctors. They tried their best to heal the physical and mental ailments with the herbs only. They considered most of the diseases as the result of the imbalance of the *tridosas* and gave herbal treatment to reinstate the equilibrium. Especially after the development of the examination of pulse and the *astasthana pariksa*, it became easier for the physician to identify the cause for ill-health. They indentified many new diseases and discovered many prescriptions. After these developments, it seems that they considered it not

necessary to let blood in most of the cases even though they were cured previously by the method of extracting blood. Especially from the time when Yoga got popularity as a therapeutic system, the surgery might have been considered unnecessary in most of the cases. Rasa system of medicine also achieved wonderful cures. That's who except in war camps, major operations did not seem to be necessary in general cases. Linschoten observed this and writes thus: "neither yet when they are sick will for anything be let blood, but heal themselves by herbs and ointments and by rubbing their bodies with Sanders, and such life sweet woods."¹

Cautery or *agnikarma* is considered more efficacious by the physicians from ancient times. It was particularly prescribed in tumours, fistula, swelling of testicles, elephantiasis, swollen glands, de-colourisation of the skin, bad wounds or ulcers, ophthalmia, headache, haemorrhoids and diseases.² The talent of Indian doctors in *agnikarma* was appreciated by the foreigners also. A French traveller Moseotheona visited the kingdom of Golconda during the reign of Abdullah Qutub Shah. He praised the treatment of *colic* by *agnikarma*. He described many methods of *agnikarma* and minute differences among them.³

Another common operation done by the surgeons was that of cataract. Vemana refers to this.⁴ He mentions, "when a cataract(*pōra*) covers the eyes of a person, he will be unable to see and then the operation is needed". In *Kālahastimāhātmyam*, we find a reference to a surgical instrument known as *bhallamukhāgramu* used in eye-operations.⁵ Operation of tumours was quite common. *Nirvacanōttara Rāmāyaṇamu* refers to a tumour originate from fat and its incision with surgical instruments.⁶

1 Purchas, *Pilgrims*, X, pp.255-56.

2 Dr.P.Kutumbaiah, *Ancient Indian Medicine*, p.162.

3 *Bulletin, IIHM*, XI, 1986, p.50.

4 *V V*, 522.

5 *Kalahastimahatmyam*, III - 115.

6 *Nirvacanottara Ramayanamu*, V-81.

For simple things like sutures to cuts and wounds were done by the village doctors also.¹ It seems that the barbers were also experts in making operations. A Persian record belonging to the Bijapur dynasty gives an allusion to the existence of rhinoplasty performed by a barber.² It was, perhaps due to this service of this caste that Ramaraya extended much favour on this caste and granted special privileges to them.³

EPIDEMIC DISEASES AND THEIR ALLEVIATION

The epidemic diseases like Cholera, small-pox, chicken-pox etc. created a great fear in the minds of the people. In an inscription,⁴ we find that people vacated the village when cholera started spreading and returned to their place only after complete disappearance of the epidemic there. Krishnadevaraya advised not to enter the place where there was an epidemic disease.⁵

It was a common belief in the medieval times that every village was surrounded by evil spirits, who were always on the watch to inflict diseases and misfortunes of all kinds. Hence the villagers worshipped the guardian-deities of their village for protection, whose function was to get rid of these evil-spirits and protect the village from the epidemics, of Cholera, small-pox, fever, cattle, diseases, barrenness, in women, failure of crops, etc.

In Andhradesa, the worship of Seven Matrikas who were regarded as the Seven Sisters and who were the creators of health or disease was very common during this period. The information regarding the worship of these deities can be seen in their art, inscriptions⁶ and literature.⁷

1 *Amukta*, VI-85.

2 *Bulletin, IIHM*, XVI, 1986, p.6.

3 *E.C.* XII, Tp. 126,p.66;E.C., VI,Tk.13,p.105;E C, XI, Mk.6,p.90.

4 The Nandaluri inscription dated A.D. 1191. *South Indian Temple Inscriptions*, Vol.III, part-II.

5 *Amukta*, IV - 168.

There was also a common practice in the villages to identify seven sisters of the disease-goddesses for seven forms of small-pox and Pōturāju, as their brother.

The people worshipped these deities for averting not only human diseases, but also animal diseases. Vēmana mentions in a verse that sheep are sacrificed to the Mother Goddess to ward off cattle diseases such as *domma*, *pāru*, *gālikunṭu*, etc. He abuses these as inhuman activities and ridicules the people that they do such things with the intention of eating these animals on the pretext of sacrifice to the goddess.¹ In his opinion, insects cause the disease to the plants and trees. Likewise animals also fall ill in account of the attack of some germs and insects. Hence Vēmana makes it clear that this kind of diseases of animals and plants should be cured with the help of medicines and pesticides respectively.² In spite of the remonstrations made by Vēmana and perhaps by the other medical scholars, the cult continued in the society. The Telugu literary works testify to the survival of this practice from the early times till recently in the villages. The longstanding survival of this cult in the society indicates the immense faith of the people in this cult. It gave psychological relief and courage to them to face the epidemics.

10 *Inscriptional Glossary of A.P.* pxcii. *Inscriptions of Nellore District*, Raipur-10 & Nellore-119.

11 *Sukasaptati*, II; *Simhasana Dwatransika*, III-33.

REFERENCE IN THE MEDICAL TEXTS

Caraka and Susruta mentioned many demons of children's diseases and the means by which they can be propitiated and the offerings that have to be made to them, but the cult of seven matrikas was unknown to them. It was purely a Dravidian cult which can be seen in the South from the very early times. The worship of goddesses itself was the Dravidian feature. As can be seen from the sources, almost all the epidemic deities are female except one or two.

For the first time Ḍalhaṇa in 12th c.A.D. and later Bhāvamiśra in 16th c.A.D. referred to the Goddess Sitala as the deity of small-pox in their medical works. In the works of South Indian scholars such as *Siddharasāṇava* we find references to these goddesses. Basavarāju referred verse from *Siddharasāṇava* which says that 'masucika' was the wrath of the goddess *Mahāśakti* as it looked terrible to look at.¹ Indraganti Vallabhācārya, mentioned that the disease known as "spōtaka" (small-pox) is the result of the sin committed previously by that person.² Ofcourse, he gave the scientific reasons for the occurrence of *spotaka* and *masurika*.³ He prescribed the juice of cloves, coriander seeds, cummin and grapes with hot water four times a day. He says that after taking if for three days, the patient will become alright.⁴ Vallabhācārya explained various kinds of *spōtaka jvaras* and *masūrīkā jvaras*, their causes, characteristics and treatment in two chapters.⁵

It is a significant thing to be noticed that though the scholars seem to have accepted the traditional belief they did not stress on the wrath of certain gods and goddesses. They gave the scientific causes. The diagnosis of these diseases also came under the perview of the doctrine of tridosā.⁶ Just as in other diseases, the medical scholars prescribed some medicines and suggested the diet to be taken to

1 Basavarajiyamu, I-135, p.25.

2 "Purvapapavasaschaiva spotak jvara sambhavah" - *Vaidyacintamani*, Part I, p.58.

3 *Ibid*, Part II, p.360.

4 "Purvapapavasaschaiva spotaka jvara sambhavah" - *Vaidyacintamani*, Part I, p.58.

5 *Ibid*, Part II, pp.353 to 373.

6 Basavarajiyamu, I-134.

maintain the equilibrium of *vāta*, *pitta* and *kapha*.¹ Basavarāju took many verses from ancient works such as *Siddharasāṃhava*, *Mādhavanidāna*, *Aśvanīyam*, *Āyurvēda*, etc.² which contain the magico-religious treatment of these diseases but he did not take such verses which explain the unscientific causes for *vispōṭaka* and *masūcika*, neither did he suggest the magico-religious treatment. For example he took two verses from *Siddharasāṃhava* in explaining the treatment of *spōṭaka jvara*. The first verse says that some ways of treating this disease including the propitiatory activities and the magical powders are going to be explained. But Basavarāju did not take the verses which contain these methods. He took only the verse which explains the scientific methods of treating this disease. Next he gave two verses one from *Mādhavanidāna* and another of his own prescription. These two also contain the herbal prescriptions only.

Linschoten, the Dutch traveller of 16th Century, who observed the existence of the epidemic diseases in South India, mentions the conditions prevailed in those days thus: "The sicknesses and diseases in Goa, and throughout India, which are common, come most with the changing of the times and the weather, as it is said (before). There reigneth a sickness called "Mordexijn" (cholera) which stealeth upon men, (and handleth them in such sorte), that it weakeneth a man, and maketh him cast out all that he hath in his bodies and many times his life withall. The sicknesse is very common and killeth many a man, where of they hardly or never escape. The bloody Fluxe is (there likewise) very common and dangerous, as the plague with us. They have many continual fevers which are burning agues, and consume mens (bodies with extreme heate), whereby within four or five dayes they are (eyther) whole or dead. This sickness is common and (very) dangerous, and hath no remedie for the Portigalles but letting of blood: but the Indians and heathens do cure (themselves) with hearbes, Sanders, and other such like oyntments, wherewith they ease

1 *Ibid*, I-140 to 144.

2 *Ibid*, pp.24-27, 591-95.

themselves. This sickness consumeth many Portugalles every yeare, some because they have little to eat, and lesse to drink of and meat or drink that is nourishing, and use much company of women, because ye land is naturall to provoke them therunto, as also ye most part of the soldiers by such means have their living and their maintenance".¹

Padro Teixeira, another traveller(1590-1) gives witness to the cure of cholera or *Maremma* by using the medicinal stones. He says thus: "There is a stone of the porcupine, which grows in his belly, of such excellent virtue that only such as have tried it can believe it without a doubt. Whereof I am a good witness, having seen its effect at different times and in various places and especially in the city of Cochin in the year 1590 and 1591. Governor there used up two such stones in the service of the poor, working wonders against a disease more dangerous and violent than the plague, which lasted for two whole years and carried people off in four or five hours. This was a Choleraic complaint, which the Indians call *morxy*, and the Portuguese *mordexim*. An infusion of this stone in water is effective in all maladies, and may be safely given in all except to pregnant women in whole case some inconvenience may result from its extreme bitterness".²

Thus it is clear that the physicians considered these diseases same as with the other diseases in case of *nidana*, diagnosis and treatment also. They did not advise the people to depend mainly on the propitiatory activities such as slaughtering of animals, or other offerings which caused violence. They prescribed drugs to be taken to alleviate such diseases. Hence the practice of worshipping epidemic diseases was merely a practice continued in the *janapadas* and had no assent of the scholar-physicians.

Though they observed some traditional propitiatory rites they definitely followed some of the prescriptions of the physicians such as *dhūpas*, decoctions, medicinal stones, etc., and the dietetic restrictions as the village people do at present. In these *dhūpas* the drug substances such as the leaves of the sacred Basil, neem, the seeds of

1 Purchas, *Pilgrims*, X, pp.253-54.

2 H.K.Kaul, *Traveller's India, An Anthology*, p.298.

cotton, Bengal-gram, ghee, etc., are used. The fact that small-pox was considered to be a communicable disease from one person to another by seeing, touch and laughter as the other diseases such as diseases of eyes, *apasmāra*, consumption, leprosy, etc. can be found in the commentary written by Mallinātha Sūri on *Naiṣadhīyacaritra*.¹

BHŪTAVĀIDYA

In ancient days, psychiatry was known as *Bhūtavaidya*. *Bhūtavaidya* is mentioned as one of the eight branches of Ayurveda. Then it was believed that the psychical diseases are caused by the influence of manes, evil spirits and the *navagrahas*.

In the literary works of medieval Andhradesa, we find the description of *Bhūtavaidyas* and their abilities in their profession. There are also some references which prove that the people, especially the villagers had belief in the existence of manes, evil spirits and the influence of *navagrahas*. If we keenly observe the preventive methods followed by the people to protect their children from these spirits, we can find out that they were all helpful in preventing the virus and bacteria.

If we go through the medical works of the period, we can observe a definite development in the treatment of psychical diseases. The scholar physicians of the period explained the scientific causes of the psychical diseases and the methods with which they were to be treated. Vallabhacarya described 17 kinds in madness. They are explained as caused by the imbalance of the *tridoṣas*, by *sannipāta*, by tension, grief, fear, etc.² He prescribed some *kaṣāyas*, *cūrṇas*, *ghṛtas* and *naśyas*.³ He also gave a list of things to be taken as diet and the things that should not be taken by a psychic patient.⁴ He did not prescribe the brutal methods of treatment such as whipping, frightening, burning with hot

1 *Bulletin, IIHM*, Vol. IX(1-4), 1979, p.16.

2 *Vaidyacinṭamani*, II, pp.271-278.

3 *Vaidyacinṭamani*, II, pp.278-283.

4 *Vaidyacinṭamani*. p.284.

iron,, exposing to the sun etc., as was usually done in ancient days. But the traditional beliefs and practices did not seem to have completely extinguished from the society.¹

Harṁsavimśati describes the dressing of the *Bhūtavaidyā* and the way the maintains his profession as if showing in a mirror.² He is said to have worn in his some amulets, medical-box, medicines, and a *mantradanda*.³ People had great belief in his powers as a healer of mental diseases. It is said in *Harṁsavimśati* that on smelling his existence in the surroundings, the manes and devils run away with fear not even looking back. It is also mentioned that the evil spirits like *piśāca*, *prēta*, *bhētāla*, *mōhini*, *kāmini*, *śākini*, *ḍhākini*, and *brahmarākṣasa ganas* rush to escape from his sight with fearful loud cryings. *Bhūtavaidyas* followed strict rules and regulations in their personal life also to retain the great powers they acquired by learning the *mantras* and *tantras*. They were able to cure not only the patients who fell prey to the striking of evil spirits, but also the soldiers who lost the mental balance in the battle-field and also the children, young men and women who were mentally ill, by way of hypnosis and psycho-analysis.⁴ An inscription from Kondapaka belonging to the regnal period of Kakati Ganapatideva refers to a scholar named Adityamatya as an expert in hypnosis. He is said to have the title "*Cittavaśīkaraṇamantrasiddha*".⁵ The *parahita* physicians, referred in the Kaluvaceru grant,⁶ are mentioned as experts in hypnotism and psychiatry. Like Adityamatya, *Parahitācārya* too was a "*Cittavaśīkaraṇa mantrasiddha*". One of the ancestors of *Parahitācārya* is mentioned in the grant as had operated a snake by using this art i.e., hypnosis.

1 L.D. Barnett, *Antiquities of India: An Account on the History and Culture of Ancient Hindustan*, Punthi Pustak, (Calcutta, 1977), p.243.

2 *Hamsavimsati*, I-232.

3 *Ibid*, III-62.

4 *Hamsavimsati*, III, *Basavarajiyamu*, pp.799-803.

5 *Bharati*, Sept.1986, pp.9-13.

6 *Andhra Sahitya Parishat Patrika*, Pramadi, Chaitra, pp. 93-103.

HOSPITAL FACILITIES AND MEDICAL CENTRES

During this period, generally the hospitals were maintained in the temples or the *mathas*. The kings, the feudal lords and the rich people made grants to the temples for the maintenance of the hospitals or medical aid centres. Some physicians maintained hospitals at their home and some others used to go to the patients home to give treatment.

The Andhra region is famous for its religious centres belonging to Saiva and Vaisnava faiths. These centres played an important role not only as places of religious faiths, but also as social service centres. Various religious wings vied with each other in extending medical aid to the common people. They took up medical aid activities as a main means to propagate their religious faith. They did not satisfy merely with these activities. They continued research work to find out new medicines for the new diseases and some new forms of medicines for the easy cure of old and chronic diseases. As a result of the competitive spirit in the research work to find out wonderful cures among different religious sects, the science of Medicine reached its zenith in its development during this period.

Especially, the medical service of the Saiva monks is noteworthy. The upper classes of the society during this period were influenced by Brahmanism and the appeals of the Saivas were generally made to the masses and hence they came forward to extend medical facilities to the masses which were more necessary to keep up their health and to protect themselves from diseases. As a result of it, almost all the religious men studied the science of medicine and all the religious centres maintained hospitals. Expert physicians worked in the hospitals established at the religious centres.

A grant made by Gōvindavarma Mahārāja, son of Mādhava Varma and grandson of Indra Varma registers a provision made for the daily worship and to meet the expenditure of the preparation of drugs in the hospital. Those medicines were intended for the use of the Buddhist monks residing in the *Caitya*.¹ This epigraph is said to have been found in the Tummagudem (Ramannapet Tq, Nalgonda district).

At Thirumakkudal near Kanaipuram, there existed during the regnal period of Virarajenderachola, a college and a hospital, the

expenses of which were met from the revenues of the local temple of Mahavisnu. The inscription dated A.D. 1067¹ containing this information gives a very detailed account of the entire budget of receipts and expenses of the temple. The temple-hospital is said to have contained 15 beds. Tirumakkūḍal is located in the Chengleput district in the present Tamilnadu State.

An inscription from Udayagiri (Nellore district) dated S.1168 (A.D.1245) mentions that there flourished *Rasāyana*, *Pandānjana*, *Ghaṭika*, *Kanyakāvāda*, *Mantravāda*, *Dhūmravāda*, *Rasavāda*, *Garudavada*, etc. The inscription also bears the names of the famous medical saints such as Siddhavyāli, Nāgārjuna and Siddha Buddha.² Thus it indicates the fact that there was a hospital where the above medical procedures were followed and the saints mentioned might have lived in and around this place propagating their knowledge and serving the people with their art of healing, Gaurana of fifteenth century mentioned these saints among the *nathasiddhas*.³ There were two monasteries attached to the temples of Siva and Mahasena in Bezwada in which the monks fed the poor, tended the sick and consoled the afflicted.⁴

MANDADAM

Another important inscription⁵ which gives information about a *matha* hospital is the Malakapuram grant. It is dated in S.1183, in the reign of Kakatiya King Ganapatideva and registers the gift of the village Mandadam, situated in the South of the Krsna in Kandravāṭisīma in the Velanadu *Viśaya* and of the village Velagapudi, together with an island in the river, by Ganapatideva and

10K.V.Sarma, *Ayurveda Itihasamu*, Part II, p.358.

1 *South Indian Temple Inscriptions*, Vol.III,Part II, p.204, E.I.XXI, pp. 68-72.

2 *Inscriptions of Nellore District*, Udayagiri, 3-4.

3 *Navanathacaritra*, p.268.

4 *Gazeteer*, Krishna District, p.34.

5 *Inscriptions of Andhra Pradesh*, No.183,p.245.

Rudramadevi to Viśwēśwara Śivācārya of the Gōḷakimaṭha. Viśwēśwara Śivācārya, in turn, amalgamated the two villages into one and named it after himself. Here he founded a temple, a monastery, a college, a choultry, a maternity home and a general hospital. He divided the whole land into four. One to *dravida* families, one for Siva temple, one for the college and another for the maintenance of the maternity home and the hospital. A doctor and a compounder were appointed in the hospital. A feeding house was also maintained for feeding all from the Brahmins down to the fifth caste. This information makes us believe that the hospital established by Viśwēśwara Sivacarya was a big one having all facilities. It had two wards i.e., maternity and general. Steps were taken to see all the requisites of a hospital be provided. Generally, a good hospital requires an efficient doctor, attendants, a good stock of important drugs, a good stock of food and regimen and maintenance of a garden. This inscription from Malakāpuram informs us that there were appointed artisans and other people skilled in handicrafts to make the instruments or storage articles to preserve the medicines. The island donated must be the garden-land for the cultivation of herbs.

Viśwēśwara Śivācārya established the monasteries in other places also. He built the *Upalamatha* in Kālēśwaram and gifted to it the village of Ponnugam, setup god Viśwēśwara and built a *matha* at the town of Mantrakūṭa and gifted Mānēpalli and Ūṭupalli to two choultries of the god; set up Visweswara at Candravalli; widened the boundaries of the Kāncampalli tank and gifted a half of it to the god; built a town after his name in Nandapura and gifted to its god the village of Munikūṭam, installed god Visweswara in Kommur and gifted to him 30 *Khandrikas* of wet land and five *Khandrikas* of wet land and built a *matha* at Eleswaram to the South-East of Srisailam; Ganapati gifted to it the village of Kandrikota in the Palnadu *Viśaya* as *Ācāryadakṣiṇa*, set up a Linga at Nivṛtti (Sangamēśwaram) and gifted to it, Bunnur and Dudyala in the Vellalasthala, and set up Viśwēśwara at Uttara Sōmaśila and gifted Ibaprolu to him.¹ All these centres also must have extended medical aid to the people. In Navanāthacaritra, the herbs available in and around Ēlēśwaram are mentioned and the place is indicated as the *Rasasiddha* centre.

AMARĀVATI

Amarāvati is situated a few kilometres away from Mandadam and on the banks of the river Krishna. It is one of the *Pancaramas* situated in Andhradesa. During the reign of the Satavahanas, there existed a *mahāstūpa* measuring 100' high and 521' in circumference. Acarya Nāgārjuna in his early years of service to Buddhism resided here and established a learning centre, where Ayurveda with its two divisions, viz., *Swasthavritta* and *Āturavritta*, sculpture, painting, art, architecture, etc. were taught to the students coming from China, Japan, Tibet, Burma, Siam, Ceylon, etc. By the time Yuan Chuang visited this place, it lost its previous popularity and magnificence due to the adverse political condition. Yuan Chuang stayed here for few days and learnt *Mahāsāṅghika Abhidhamma* philosophy. It suggests the fact that the learning centre established here continued its services. Krishnadevaraya's Amaravati inscription records the village gifts made by him to the scholars well versed in various subjects and who were attached to the temple.¹

ŚRĪŚAILAM

Śrīśailam or Śrīparvata or Śrīgiri was the most famous religious centre of medical importance in medieval India. The physicians all over India wished to visit this place at least once in their life time. Not only the Indian physicians and alchemists, but also the physicians from other countries such as China, Tibet, Nepal, Afghanistan, etc., visited this place.² The forests that surround the hill with rich animal, herbal and mineral resources added much importance to this place as a medical centre. Many *Siddhas* resided in this place, made experiments in the

108 I I, X, 395; *Inscriptions of Andhradesa*, No. 183, p. 245.

1 Dr. D. Dikshitulu (ed), *Amaravatikshetram*, (Tel), Sri Amareswaraswami Devasthanam, Amaravati, 1992, pp. 30-31, 43-44.

2 K. Obireddy, "Nathasampradayamu", *Bharati*, June, 1985, p. 17.

art of healing, identified many powerful herbs available around Srisailam and their efficacy etc., and brought them into therapeutic usage.

The *Rasaratnākara* of Nityanātha Siddha mentions that a chemical laboratory existed at Srisailam and that experiments were made in it regarding alchemy. He also described various mineral and herbal substances. *Navanāthacaritra* written by Gaurana contains the history of the Nāthasiddhas and described in detail the visit of Gōrakṣanātha, Allamaprabhu and Nāgārjuna to Srisailam. It also informs us that Atreya, a student of Nagarjunacarya, set up a laboratory in a cave near the Pātālaganga.¹ As it remained as a great centre of Rasasiddha school of medicine in South India many siddhas like Rēvaṇasiddha, Pūjyapāda and great physicians like Ugrāditya etc., in the ancient period visited these places.

Rasavidya was highly developed in Andhra under the influence of the cult of Navanātha siddhas and Vira Saiva saints were experts in metallurgical sciences, especially *Rasavāda* using *rasa* or mercury for curing diseases. Nāgārjuna is regarded as one of the nine siddhas and he is described as the founder of *Rasasastra* in *Navanāthacaritra*. It is believed that Nāgārjuna is the author of *Rasakaccaputa*. Though Siddha Nāgārjuna was born in Vidarbha country, he spent most of his time in Srisailam and Nāgārjunakonda area in making many experiments in alchemy.² Bhāvamīśra of sixteenth century A.D. in his work *Bhāvaprakāśa* suggested the visit of Srisailam and Purushōtthamkṣētram for the cure of certain diseases.³

The *mathas* in those days maintained hospitals and extended medical aid to the people around the area. There are numerous *mathas* on the Srisailam hill situated to the west of the Mallikarjuna temple. Inscriptions refer to the Kallu matha, Arasa matha, Gaṇa matha, Basavamatha and Bhikṣāvṛttimatha. Among these, it seems, Bhik-

1 Dr.M.Ramaraο, *The temples of Srisailam*, A.P.Govt. Arch.Series, No.23, (Hyderabad, 1969), p.5.

2 *Ayurveda Itihasamu*, p.34.

3 *Bhāvaprakāśa*, II- p.878.

śāvr̥ttimaṭha had wide popularity. Gaurana wrote his work *Navanātha Caritra* at the instance of Mukṭi Śāntarāya of Bhikṣavr̥tti matha of Srisaikam. Srinatha also wrote his work *Sivaratrimahatmyam* at the instance of this Virasaiva pontiff.

Thus it seems that Srisailam, a centre of Vira Saiva pontiffs became popular all over the country as a place full of miracles of alchemy and *rasasiddhies* or miracle medicines. Mainly the laboratory, the expert scientists and *siddha*

physicians with their great practical training attracted the attention of the physicians within the country and abroad. The forests and the hill tracts around Srisailam with very rich mineral resources helped the scientists to continue their research work both in herbal and mineral preparations.

This temple along with Tripurantakam received the patronage of the Reddis and Rayas after the fall of the Kakatiyas. "The Srisailam - Tripurantakam area formed the bone of contention between the rulers of Vijayanagara and the Reddi kings of Kondavidu". It changed hands upto A.D. 1422 between Reddis and Rayas. It was after the fall of Kondavidu Kingdom of the Reddis in A.D. 1422 it became the permanent part of the Vijayanagar empire. The Reddi kings and the Rayas of Vijayanagar their family members, chiefs and generals made many grants to this temple and to various mathas situated in Srisailam. Kumaragiri Reddi of Kondavidu constructed steps to the Srisailam hill and the other Reddi kings also made arrangements for the convenient travel of the pilgrims to this place. The Vijayanagar king Kṛṣṇadēva Rāya constituted Srisailam into a *rajya*. During his reign, a Vira Śaiva bigot was killing many jains as a sacrifice to the God Mallikārjuna. Kṛṣṇadēvarāya sent Velugoti Gani Timmā Nāyudu to punish him. The general killed the cruel bigot and restored peace there.¹ He and his successors and generals made many grants to this temple. After the battle of Raksasi-Tangadi in 1565, the Bijapur

1 Dr.M.Ramarao, *The temples of Srisailam*, p.16.

Sultan occupied the Kurnool region. He constituted the modern district Bellary and Kurnool into a separate *subha* in A.D. 1573 and appointed Srirangaraja as its governor. In A.D. 1590. Muhammad Quli Qutub Shah led an invasion against Kurnool and Nandyala and occupied this region. In A.D. 1618 two Hijapur generals, Abdul Waheb and Abdul Mahammad, took the fort of Kurnool and confiscated all the *agraharas*. Then the Brahmins and the Jangamas of this place migrated to Atmakur. Srisailam lost its previous importance as religious and medical centre. Yet there were some merchants who were engaged in the business of herbs and other drug-substances. But later these two were forced to leave the place by a Brahman Desai who rebelled against Nawab Munawar Khan of Kurnool. He destroyed the Srisailam region. Later, Shivaji visited the place and appointed a small contingent of soldiers to guard the place. But they too were killed by the Rohillas who invaded the temple.¹

Thus, a great medical centre which was famous for its wonderful cures and a big trading centre having rich mineral and herbal substances in its surroundings had lost its importance and fell into decay.

TRIPURĀNTAKAM

Tripurāntakam, another centre of medico-religious importance is situated very near to Srisailam. It is famous as the eastern gate way of Srisailam. The Kakatiyas, Reddis and the Rayas paid equal attention towards the development of both tripurantakam and Śrīśailam. The principal deity of this place is Tripurantakeswara. It seems that the *siddhas* worshipped Bhairava who is believed to be a “*Swayambhu*” (self-emanated). This can be understood by the work of Nityanathasiddha. He described² the miraculous medicines and drug-substances available in and around Tripurāntakam.

1 *Ibid*, p.18.

2 K.V.Sarma, *Ayurveda Itihasamu*, pp.409-410.

THE NAVABRAHMA TEMPLE COMPLEX AT ALAMPUR

The Navabrahma temple complex is believed to be a centre for *Rasasiddha* school of medicine. It is situated in the fortress at Alampur. Alampur is located in the present Mahbubnagar district of A.P. on the western bank of the Tungabbhadra river and main temple is situated between the rivers Vēdavati and Nādavati. Alampur is also known as Dakṣiṇa Kāśī and the Western Gateway of Śrīśailam. The Navabrahma temple complex is said to have been constructed during the rule of the Chalukyas of Badami.¹

A copper plate grant of the time of Krishnadēvarāya dated A.D. 1526 mentions the names of the Nava Brahmas as 1. Caruḍa Brahma, 2. Vīra Brahma, 3. Padma Brahma, 4. Viśwa Brahma, 5. Kumāra Brahma, 6. Swarga Brahma, 7. Tāraka Brahma, 8. Sūrya (Arka) Brahma, and 9. Bāla Brahma.² The Nava Brahmas mentioned here have no parallel any where in India and bear no relation to the Nava Brahmas mentioned in the Puranas, i.e., Marīci, Bharadwāja, Angīrasa, Pulastya, Pulaha, Kratu, Dakṣa, Vasiṣṭha and Vāmadēva. The Nave Brahma temple complex with its peculiar features seems to be a place of medical importance. With the help of the medical dictionaries and on the basis of the verses of Vēmana,³ the names of Nava Brahmas may be explained with reference to medical herbs used by the *Rasa Siddhas* thus :

1. Vīra (Brahma) = *Gajanimma* (The large lime; *Atrocarpus*)
2. Padma (Brahma) = *Tāmara* (Lotus; *Nelumbrium Speciosum*)
3. Viśva (Brahma) = *Allamu* (greenginger)
4. Kumāra (Brahma) = *Kalabanda* (Barbadoesalves; *Aloe Vera*)
5. Arka, (Brahma) = *Jillēdu* (Gigontic Swallow wart)

1 M.Radhakrsna Sarma, *Temples of Telangana*, p.40.

2 M.Radhakrisna Sarma, *Temples of Telangana*, p.46.

6. Bāla (Brahma) = *Kuruvēru* (Pavonia Odorata)
7. Tāraka (Brahma) = milk-hedge; *Euphorbia tirucalli*
8. Garuḍa (Brahma) = Bīḷvamu (The Bael; *Aegle marmaclos*)
9. Swarga (Brahma) = *Pārada/Rudravīrya* (mercury)

An episode of deer and hunter is carved on the pillar at the narrow entrance to the fortress. The depiction in the carving is identified with the story contained in the fifth chapter of the Sthalapurana namely *Sri Brahmēśwara Kṣētra Purāṇam*.¹ The temples of Alampur were built by a *rasa siddha* with the blessings of Gods. A king named Vilasat Raja who was an atheist, attempted to destroy the temple and was cursed by the *Siddha*. In a short while he lost his wealth and army and was wandering in the forest. One day he met a deer who told the king that he should go to Brahmēśwarakṣētra and do penance there for some time and reconstruct the temples to get over his sins. The king in the sculpture is identified with Vilasat Raja. Thus the *sthalapurāṇa* also informs that it was a centre for the *siddhas*.

The Nava Brahma temple complex with its peculiar features seems to be a place of medical importance. The *Rasa Siddha* system of medicine was developed by the saints of Andhradesa. Like Srisailam it too, might have been a famous centre of *Rasa Siddhas*. Though it was believed to be a very ancient centre, we get the epigraphical evidences of its existence from eighth century A.D. As the *Rasa Siddhas* believed mercury to be the very semen of Siva and the sulphur as the menstrual blood of Parvati, they worshipped the 'linga' and 'yonī'. The special features which indicate the importance of the place as a *rasa siddha* centre are : the Rasalinga at Bālabrahmēśwara temple, the Śaktipīṭha of Jōgulāmba (the presiding deity of the place) and the *Nagnakabandha* statue. The whole complex seems to be a big laboratory for the alchemical operations.

In the light of other sources such as the works on *Rasa sastra*, it is believed by Sri I.Sanjiva Rao that it was built in accordance with the rules laid down for the construction of *rasasala*. He says, "After the

1 Doma Venkateswaragupta, *Sri Brahmēśwarakṣētra Purāṇam*, *Sri Vaimāya Vinodini Granthamala*, (Madras, 1931), V.

rasalinga sthāna on the east, other metallurgical operations are undertaken as follows with relevance to the topographical disposition of *rasaśāla*. Metallurgical operations requiring the use of fire (*vahnīkarma*) are to be taken up on the South-East quarter grinding operations (*Pēṣaṇākarma*) on the southern quarter, surgical procedures (*śāstra karma*) in the south-west quarter, washing operations (*Kṣṭhāṇādikarma*) on the western side, drying-up operations (*śōṣana karma*) on the north-west side, alchemical (*vēdha karma*) on the north-east side. The storage of raw material is done in the centre. The Rasalinga is prayed everyday".¹ It is said that Siddhanagarjuna, Nityanāthasiddha and Bhairava mention about this Brahmeswara Kṣētram and its relation to *Vāda Vidyā Siddhi* in their treatises viz., *Rasaratnākara* and *Ānandakanda*, thus establishing the connection between *Rasa Siddhas* and the Brahmeśwara Kṣētra.²

The Sūryanārāyaṇa temple and the Nṛsiṃha temple are the other two important temples in this context, here at Alampur. The literary as well as the archaeological evidences prove that the Andhīras worshipped the Sun as the healer of diseases and protector of health of the hale.

ĒLĒŚWARAM

Ēlēs̄waram too is a sacred place for Saivites. It also attracted the attention of the *siddhas*. It is situated to the south-east of Srisailam and the *siddhas* who visited Srisailam used to stay in Ēlēs̄waram for sometime. Viśwēśwara Sivacarya built a *matha* at Ēlēs̄waram. Ganapatideva gifted a village for the maintenance of the *matha*.³ Nityanātha siddha and Gaurana referred to this place as a rich herbal centre. Gaurana gave a long list of herbs available here.⁴ Hence it must be definitely a great medical centre in those days.

1 I.Sanjiva Rao, "Rasasiddhas of Alampur", *Bulletin, IIHM*, Vol.XIII, pp. 40.

2 *Ibid* p.41.

3 *Inscriptions of Andhra Pradesh*, p.245.

4 *Navanathacaritra*, pp.293-94.

SRIRANGAM

There was a hospital at Srirangam which was attached to the temple of Lord Ranganatha. It is said to be established by one Hselasenani in thirteenth century A.D. and one Srinivasa surnamed Garudavahana is said to have repaired the hospital which had suffered on account of Muslim invasions and installed an image of Dhanwan-tari Emberuman in this temple.¹ Garudavahana Srinivasa belonged to fifteenth century and is said to be the author of Divyasuricaritam, a hagiological kavya in Sanskrit dealing with the lives of the Vaisnava Acaryas and Alvars.²

DĀKṢĀRĀMA

The Bhimēśwara temple at D ākṣārāma is a famous temple and is recognised as one of the five Āramaksetras of Andhradesa. In Bhimeswarapuram,³ Srinatha praised Daksarama as the place of *Siddhi* (attainment), by *pāḍuka*, *khaḍga* (sword), *ghaṭuka* (pills), *rasa* (mercury), *rasāyana* (rejuvenation), *mūlikā* (herbs or roots), *anjana* (collyrium), *ākraṣaṇa* (attraction) and *adṛśya* (invisibility), etc. It reveals the fact that the temple of Bhimēśwara maintained a big medical centre in Dākṣārāma. It seems that the treatment was made in all the procedures of Ayurveda i.e., *sāstra*, *rasa*, *mūlika*, and *tantric*.

Srikalahasti, Puruṣōthamakṣētram, Kanci and other Saiva as well as Vaisnava centres located in other parts of South India also maintained hospitals and patronised the scholar-physicians. These centres also maintained links with other holy places spread throughout India and exchanged the saints, scholars and physicians in a reciprocal manner. As a result of it, the new ideas and developments also spread among the scholars throughout the country. Especially in a period

1 A R E 81 of 1936-'37; Rep. Para 49.

2 T.V.Mahalingam, *Admn. and Social Life Under Vijayanagara*, Part II, p.268.

3 *Bhimeswarapuram*, VI - 75.

where there were absolutely no facilities for communication, these religious institutions acted as communication centres and as shelters to travellers.

Another noteworthy thing is that the temples and the *mathas* seem to have patronised and encouraged the scholar-physicians and scientists more than the state directly. Both the temple and the *matha*, in medieval Andhradesa, maintained educational centres and recruited scholars to impart education including the sciences such as Ayurveda.¹ This science was studied by the monks, priests, literary scholars and many others who were interested in it. Many references to this science in the contemporary literary sources testify to this fact. The monks in the *mathas* and the priests of the temples were generally the local physicians serving the people in the surrounding villages. The expert physicians imparted medical education to the students in both theory and practice.

Thus it is clear that during this period, the physicians of Andhradesa gave much importance to therapy while accepting the principles laid down by the ancient scholars. They spent much time in finding out the causes of the new diseases, the remedial methods and new forms of medicines. That's why we can find a significant development in these fields. In addition to the wonderful scientific achievements, we can observe during this period, an unscientific method of diagnosis known as *Karmavipāka* explained in the medical works. As learned men in many *dharma śāstras*, they felt it their responsibility to safeguard the ethical values in the society. They tried to infuse fear against sin in the minds of the common people. In case of treatment also, they prescribed some propitiatory activities along with the medicine to inculcate in the people charity, righteousness and respect towards the religion and dharma.

The doctrine of *tridōṣa* functioned as the heart of the indigenous medicine and its veins and arteries penetrated into every branch of the science. The method of *aṣṭasthānaparikṣa* in diagnosis owes its

1 E I, Vol. XXIII, The Pithapuram plates of Viracodadeva; *South Indian Temple Inscriptions*, Part II, p. 204; *Navanathacaritra*, p. 6.

origin in the efforts made by the medieval Andhra scholars. The traditional system of prognosis did not receive much attention of these scholars. The physicians were very anxious in identifying the new diseases and in finding the new therapeutic methods. The urban and the upper class people in the society were conscious of the developments in the science of medicine. The new drugs were popular among the people. But the common people in the *janapadas* were not so conscious of the developments in the science. Though they followed to some extent the scientific methods and used the new drugs, in some cases such as epidemic diseases, they continued the traditional method of worshipping the deities for the averted of their wrath. Their superstitious beliefs and activities in such cases precipitated the necessity of reform movement. Vēmana, Rāmanna and some other unknown physicians led a remonstrance against the irrational traditions prevailed in the medical field. Vemana advised the people time and again to give up the irrational and the inhuman activities and follow the right path.

We do not know much about the hospitals maintained by the medical practitioners. The literary sources inform us that the physicians used to go to the patients home to give treatment. The inscriptions of the period inform us of the hospitals maintained by the religious institutions such as the temple and the matha. It is a well-known fact that the temple and the matha played a significant role in the social, economic and cultural life of the people. Especially the services of these institutions in the medical field are praise-worthy and noteworthy too. They maintained hospitals, provided employment to many people by recruiting them as physicians, surgeons, nurses, compounders, watchmen, washermen and other people who were engaged in collecting the drug-substances and in making utensils to prepare and preserve the medicines.

If we take the teeming population of the time as the indication of good health condition of the people, then it can be presumed that the Andhra country was very populous during the medieval period. Though there are no exact calculations of the population of the

period, there are some references in the contemporary literature¹ and in the accounts of foreign travellers. Nicolo dei Conti, who visited the Vijayanagara Empire in A.D. 1420 found that the number of people in it exceeded belief.² Abdur Razzaw who came to this country during the reign of Devaraya II, remarks that the kingdom was so well populated that it was impossible to give an idea of it "without entering into the most extensive details".³ Paes who visited this kingdom in A.D. 1520 mentioned that the whole country was thickly populated with cities and villages.⁴

1 *Amukta*, II-70.

2 Major, *India*, p.32.

3 Elliot, *History of India*, IV, p.109.

4 *The Vijayanagara Empire*, p.26.

CHAPTER VI

Up-keep of Health and Hygiene in the Society

The purpose of Ayurveda is the protection of the health of the hale and the alleviation of disease of those who are ailing.¹ When persons in health conduct themselves improperly, in respect of diet and deportment, forgetting considerations of measure and season, diseases are generated. "One endued with intelligence and desirous of maintaining health should bestow great care upon everything connected with food, deportment and practice."² Thus more stress was laid on the maintenance and up-keep of health to escape from the attack of diseases.

To maintain the health of the body and mind, one was supposed to perform his duties properly and within appropriate time as prescribed in the sastras. The people followed the ancient scriptures with regard to the maintenance of the regimen of life. In the contemporary literary works, we find a number of references to the regulations concerning the daily regimen (*dinacaryā*) of life and the seasonal regimen (*ṛtucaryā*) followed by the people of all classes. The scholar-physicians of medieval Andhradesa composed separate works on to propagate among the people the importance of the up-keep of health to avoid discoses. We find some stray references here and there in the inscriptions to the habits and customs of the people with regard to

1 *C S*, 1.30.21.

2 *Ibid.* 1.743 & 55.

this. All these sources of information reveal the fact that the people almost followed the regulations prescribed by the ancient *śāstras* on Dharma and Medicine.

Caraka and Susruta laid down some regulations with regard to *dinacarya*. They covered the following:

1. Daily ablution, regulation of the evacuations, cleaning the teeth and tongue, rinsing the mouth, washing the face, application of salves to the eyes, anointing the body, oiling the head, ears and soles of the feet, care of the hair, beard and nails.
2. Exercise, massage bath, clothing, footwear, gymnastics, sleep, etc.
3. Dietic habits (frequency and timings of meals procedures of sitting at meals, water drinking, procedure of taking various items of different tastes etc.) and articles of diet.
4. Regulation of sexual intercourse.
5. Prophylactic measures.¹

DAILY ROUTINE OR DINACARYA

According to Dharma Sastras, one should start his *dinacarya* waking up early in the morning, i.e., in the *Brahmamuhūrta*. After completing the personal daily routine work, one was supposed to pray God, the monks and one's own *guru* to be blessed with physical and mental health.

The contemporary literary sources inform us that the king's daily routine was a systematic. *Rāyavācakamu* gives the daily routine of Viranarasimha Raya² thus : The king

1. gets up from his bed in *brahmamuhūrta*³ and listens to the reading of books on religion and politics.
2. performs daily ablutions.
3. gives audience to various offices incharge of various departments.

1 C S, 1.

2 F S, II-96

3 The time between 4.30 A.M. and the sunrise is known as *brahmamuhūrta*.

4. holds *darbar* in the evening.

In *Āmuktamālyada*, it is said that a king, waking up early in the morning, should start his daily routine with a talk to a physician who enquired him about his sleep in the previous night and about his health. The king should explain his health condition to the physician and should keep in mind the regimen advised by the physician for the upkeep of his health.¹

Paes described in his account the daily routine of Krishnadevaraya which included the massage of the body, exercise and bath. He mentioned that the king finished all these before day break.²

The kings not only followed personally the regimen prescribed by the *dharma sastras* but also observed the people to follow it. In the *dinacarya* of the Raya described in *Rāyavācakamu*, it is mentioned that the king felt glad to hear the words of Dharmasanam Dharmayya saying, "According to the commands of your Majesty, the *agraharas* in the Andhra and Hoyasala countries, Morasunad, Mēlnāḍ, Karnataka, Ghaṭṭasīma, Cēra, Cōla, Pāṇḍya, Magadha and Maḷayāḷa are flourishing without any interruption. The Brahmins who dwell therein are living in happiness performing their daily rites, they are learned in the four Vedas and the Six Sastras; they perform the five sacrifices and feed sumptuously the guests who visit them." It reveals the fact that it was the duty of the king to see that the Brahmins who were expected to lead an ideal and pious life, were following the regimen prescribed to them.

REGULATION OF EVACUATION

In *Kāśikhandaṃamu*³ and *Mārkaṇḍēyapurāṇamu*⁴ we find a reference to the hygiene of the evacuation. One should go 100 yards of distance to pass urine and 400 yards away from the town to go for stools. If it is

1 *Amukta*, IV-271

2 *The Vijayanagar Empire*, pp.31-32.

3 *Kasikhandaṃamu*, V-192.

4 *Mārkaṇḍēyapurāṇamu*, III-229.

in the morning, he should sit facing to the north, if it is the night, he should sit facing to the south while doing evacuations. The heads of the person should be covered with a cloth. It was believed that one who followed these regulations would be blessed with good health.

The places where evacuations should not be done are given as follows: while standing in the middle of the water, in the tilled soil, near the cattle-herd, near the cows, in front of fire or elders, in the agricultural fields, on the roads, near the forts, while starting at the stars and at places where there are termite-hills and rat-holes. And it is believed that one should not look at the *mala* after evacuation.

After evacuations, one had to perform the *saucakriya*, i.e., hygienic activity. A ball of mud was prescribed for the cleaning of hands, feet and private parts. Women were expected to perform half the *saucakriya* performed by the men. The dharma sastras laid down that either a man or a woman should not try to escape from this.¹ The women including the women of *candala* caste observed the rules of hygiene.²

DENTAL CLEANING

Kāśīkhaṇḍamu, gives some principles with regard to the size of the stick, the method of brushing the teeth, etc.³ Vēmana says that sand, coal, stone, iron, skin and dust are prohibited in dental cleaning.⁴ Dental cleaning with stick should not be done on certain days such as *Pāḍyami*, *ṣaṣṭi*, *navami* and on Sundays. In these days, cleaning was suggested to be done by gargling the mouth twelve times with clean water.⁵ But *Mārkaṇḍēyapurāṇamu* lays down that the cleaning of teeth is equal to the act of worshipping God and it should be done everyday in the forenoon.⁶

1 *Kasikhandamu*, V-198.

2 *Kridabhiramamu*, V.73

3 *Kasikhandamu*, v.205

4 V P. 529

5 *Kasikhandamu*, V-223-224.

6 *Markandeyapuramamu*, III-227

It seems that people tried to maintain their teeth very clean and nice. The poets compared the teeth of ladies to the pearls and to the fresh rice.¹ Krishnadevaraya, in *Āmuktamālyada*, described the shining teeth of a lady who cleaned them with a single seed of paddy.² Though it was a wrong way of cleaning the teeth, the people seem to have preferred to clean the crust of teeth which was formed due to incessant chewing of betel, in the above manner.

EXERCISE

The literary sources such as *Kāśīkhaṇḍamu* and *Kaṭāpūrṇōḍayamu* described the popular exercises of the period in detail.³ People believed that physical diseases were to be cured by the medicines and mental diseases were to be cured by *Yōgāsanas* which give self-control and self-concentration. They were interested in the right knowledge and also practised some physical exercises to get this kind of treatment. Vēmana says in a verse that the physical exercises are only the "*Abhyāśavidyālu*" which are fundamental and secondary in importance.⁴ In another verse, he writes that one cannot get the attainment merely by the physical exercises.⁵ He gives primary importance to self-concentration through right and proper knowledge and secondary to that of physical exercises. But he accepts the fact that exercises give strength to the body.⁶

To get physical strength and acquire resistance power, exercise was taken as a means. In *Caraka Saṁhita*, it is mentioned that if one takes the exercise moderately, it gives lightness to the body, power to the mind, steadiness and fortitude.⁷

1 *Amukta*, IV-163

2 *Ibid*, I-60

3 *Kasikhandamu*, V-229 to 252; *Kalapurnodayamu*, III

4 *VP*; TTD Pub. III-176;

5 *Ibid*, II-425.

6 *Ibid*. 1864.

7 *C S*. 1.7.30.

Paes records the daily exercise taken by Krishnadeva Raya thus: "The king is accustomed everyday to drink a quarterilio (three quarter pint) of oil of gingelly before day-break, and anoints himself all over with the said oil, he covers his loins, with a small cloth, and takes in his arms great weights made of earthenware and then taking a sword, he exercised himself with it till he was sweated out all the oil, and then he wrestles with one of his wrestlers. After this labour, he mounts a horse and gallops about the plain in one direction and another till dawn, for he does all this before day break."¹

To improve the physical strength of the people, the kings and governors encouraged them to involve themselves in physical exercises. Many gymnaciums were constructed and the people who became experts in exercises and other games were honoured.²

MASSAGE AND BATH

The information coming from the general literature, medical works and the inscriptions reveals the fact that the people of Andhradesa, gave much importance to the massage, bath, anointment in their daily life. "The Gods of the temple were considered to have the tastes of the men who worshipped them", and hence they were provided with everything they needed in accordance with the human thought. Many inscriptions register the grants made to the temples to perform proper *proksana* to the God. An inscription, dated S' 1428 (A.D. 1506-07) of the times of Viranarasimharaya, informs us that a gift of gold for a lamp was made for bringing a pot of water from the Kaveri for the sacred bath of the God Ratnācalēśwara at Ratnagiri and for offerings in the mornings.³ In almost all the literary works of medieval Andhradesa, the poets incidentally described the massages, baths and anointments. *Cārucaryā*, a work on personal hygiene by Mantri Ap-

1 *The Vijayanagar Empire*, pp.31-32.

2 *F S.* II-104 & 108; *The Vijayanagar Empire*, p.155.

3 *ARE* 247 of 1914.

pana of fourteenth century, *Viṣṇupurāṇam* of Vennelakanṭi Sūrana and *Kāśīkhaṇḍamu*, of Śrīnātha laid down some principles with regard to bath. The habits and principles followed by the people correlate with the principles given in these works. A perusal into the references in the other contemporary literary works and the accounts of the foreign travellers proves this fact.

People gave much importance to the massage of the body from top to toe before bath and anointing the body and hair after bath. Vemana says that a person without bath, with dirty clothes and with the hair undressed and dirty, though belongs to a higher caste, will be regarded as an untouchable.¹ He says that regular use of oil is very useful to skin.²

Paes, in his account, described the massage, exercise and bath taken by Krishnadevaraya. He says that the king is accustomed to drink gingelly oil and anoints his body with the same oil before exercise. After physical exercise, the king, "goes to wash himself, and a Brahmin washes him with whom he holds sacred."³ It seems that wrestlers were appointed to attend to the duty of massaging the body of the king. The kings used to have a personal talk with them in the afternoon.⁴ An inscription from Daksarama dated A.D. 1154 records the grant made by Muddanarya to Lord Bhīmēśwara.⁵ The donor was employed to perform the *abhyangana* to Kuḷōttunga Choda Gonka. It reveals the fact that much importance was given to *abhyangana* which was prescribed in Ayurveda in the daily regimen.

Usually the barbers used to massage the bodies of the men along with shaving. We find references to the fact that there were some people who took up the profession of massaging the bodies of others. They served the rich people and took fees for it.⁶ In the towns and

1 VP, 3972.

2 *Ibid*, 1864.

3 *The Vijayanagar Empire*, p.31.

4 *Amukta*, IV-271.

5 *SII*, IV-1165; p.398.

6 *Amukta*, VI-71; *Sukasaptati*, II-363.

cities, there were saloons and public bath-rooms where hot water was sold for bathing.¹

The massage-oil was prepared with great care. The people, according to their economic position, used herbs and perfumes in the preparation of these oils. *Abhilaṣitārtha Cintāmaṇi* gives the procedure of preparing this oil. According to it, sesame oil with the flowers named *gēdangi*, *jājikāya*, *punnāgamu*, *cāmpakamu* boiled for some-time, strained and cooled should be used for massaging the body and head before taking head-bath.² Rich people used the sandal-wood oil,³ or the paste called *sumagandha* which might have been prepared by herbal flowers.⁴ They used to massage their head with *sampangi* oil (oil prepared by boiling the *sāmpangi* flowers).⁵ Application of lemon juice to the head and salves to the eyes before bath were prescribed.⁶ Vemana suggested the application of lemon juice to the head as a means for mental health.⁷ In *Sūkasaptati*, we find a list of oils that were prepared in those days. Among them, we find some oils prepared with herbal flowers and seeds such as *avise*, *kuru*, *verri*, *ippa*, *kusuma*, *gānuga*, *dunduku*, *tagiresa*, etc.⁸ It seems that the people had chosen the oil to suit the seasonal changes as we see that they used the cosmetics or ornaments to be appropriated to the seasons.⁹

After massaging the body from top to toe,¹⁰ the application of *nalugu* to the body follows to get rid of the dirt of the skin. It also helps proper blood-circulation. The powder which was used for this purpose was prepared by grinding various herbs and perfumes such as dried *ippa* flowers, saffron, *kōṣṭamu* (coitus arabicus), *takkōlamu* (clarodendrum inerme), *muṣṭalu* (cyperus rotundus), *mācipatri* (an-

1 *Amukta*, VI-71.

2 *Andhrula Śandhika Caritra*, pp. 35-36.

3 *Rasikaṇṇa Manobhiraṇṇa*, I-71; *Hamsavimsati*, V-253.

4 *Manucaritra*, V-57; *Amukta*, IV-135.

5 *Hamsavimsati*, V-253.

6 *Visnupurāṇa*, IV-197.

7 *V P*, 1395.

8 *Sukasaptati*, *SKRVS*, p.385.

9 *Amukta*, IV-106.

10 *Panduranga Mahatmyam* II-19.

temissia indica), *tagaram* (morinda tinctoria), *metṭatāmara* (cassia alata), cloves, mustard seeds, gingelly, coriander, *tagirisa* (foetid cassia), *lodduga*, sandalwood, aloewood, etc.¹ A little water was mixed to the powder prepared as above to make it into a paste. In the powder which was used by the women, turmeric and the powder of emblic myrobalan also were added.² For the cleaning of the hair in the *abhyangana*, the juice of soap-nuts was used.³

Cārucaryā gives some of the merits of bath thus: "To bath early in the morning is a good habit. It makes one fresh, pleasant, joyful, good-looking and improves longevity. Head-bath gives charm, energy, health and prevents oldage or its symptoms to appear."⁴ *Visnupuranam*, a literary work of this period, mentions the importance of daily bath thus: Bathing in rivers is the best, in lakes is better, but in wells is the worst. One should take bath either in rivers big or small or lakes or pools, but should not remain unbathed.⁵ Here a principle that one should not enter into the river to take bath without washing the feet was observed.⁶

After taking bath, people used to anoint their bodies with perfumes like white sandalwood, aloewood, civet, camphor, musk and saffron, kneaded with rose water.⁷ Both men and women took great care in maintaining the hygiene of their hair. After taking bath, men also applied the smoke of black aloewood to their long hair.⁸ In *Āmuk-tamālyada*, it was described that the ends of the hair which were broken by the honey of jasmine flowers were cured by the honey of *kaligottu* flowers.⁹

1 *Andhrula Sanghika Caritra*, pp.35-36.

2 *Amukta*, V-89.

3 *Ibid.* IV-157.

4 *Carucarya*, V-9 & 10

5 *Visnupuranam*, IV-199.

6 *Kasikhandamu*, V-207 to 209.

7 Barbosa, I, p.205; *Manucaritra*, II-55; *Rasika*, I-72.

8 *Manucaritra*, VI-4; *Radhamadhavanu*, IV-163.

9 *Amukta*, II-67.

DRESSING AND FOOTWEAR

The indigenous literary sources and the writings of foreign travellers give evidence to the fact that the people of medieval Andhradesa gave much importance to dress themselves neatly. Vemana says that people treat a person wearing dirty clothes as an untouchable in the society.¹

Especially the Brahmins were so particular about the neatness of clothes that they did not touch the washed clothes before taking bath. They used to take them to the bathing place with the help of a stick and a rope.² Speaking of the dress of the Vijayanagara monarch, Nuniz says: "The king never puts on any garment more than once." But this might be to show his unique status as the same traveller writes that "this is considered to show great status."³

Almost all the travellers were interested in the dressing of the kings and common people. They gave vivid descriptions of it. Some like Varthema viewed through the coloured glasses of foreign culture and expressed the lower grade opinion on the dressing of Honnavor says: "they are like pagans ... The common people go quite naked with the exception of a piece of cloth about their middle."⁴ But Nicolo de Conti writes more understandingly of the climatic conditions of this place thus: "Wool is very little used. There is great abundance of flax and silks, and of these they make them garments. Almost all, both men and women, wear a linen cloth bound round the body, so as to cover the front of the person, and descending as low as the knees, and over this garment of linen or silk which, with the men, descends to just below the knees., and with the women to the ankles. They cannot wear more clothing on account of the great heat, and for the same reason they only wear sandals."⁵

While going out, people used footwear to protect their feet from heat and dust. They wore shoes not only in summer, but also in other

1 *VP*, 3972.

2 *Amukta*, 1-83

3 *The Vijayanagar Empire*, p.159-160

4 Varthema, Jones, p.129.

5 Major, *India*, p.22.

seasons.¹ The contemporary literary works described various kinds of shoes worn by the people of different classes. These descriptions corroborate with the writings of foreign travellers who visited the country.

The literary sources clearly described the shoes worn by the rich and the common people. The common people used ordinary shoes made out of leather. The leather of deer or buffalo or goat was used to mend the shoes.² These shoes were made by the people belonging to *māḍiga* caste.³ They prepared the shoes in various designs. The farmers preferred to wear *kiṇṇuchappals*, perhaps to protect themselves from poisonous insects or snakes while moving in the fields. The wooden chappals (*pāvukōḷḷu*) might have been prepared by the carpenters as it was until recently. The shoe-makers used the *tangēḍu* leaves to rub on the leather shoes so as they can be made to wear.⁴ The references to the tax levied on the shoe-makers also helps us to prove the fact that the use of shoes by the people was common in those days.⁵

People used umbrellas to protect them from the sun and the rain. Rich people used them as an insignia. The kings honoured the eminent people with the right of wearing umbrellas. This kind of special umbrellas which were richly decorated were used by the people who got permission from the king. Foreign travellers described these umbrellas.⁶ The contemporary literary works also referred to the richly decorated umbrellas used by the rich. The common people used the umbrellas made of *ketaki* (*mogali*) leaves,⁷ or palm-leaves or *jammu*,⁸ with which they cover the roofs of their

1 *Candrabhanucaritra*, V-39.

2 *Amukta*, VI-69.

3 *Kṛṣṇaraya Caritra*, II-5; *Amukta*, VI-69.

4 *Kṛṣṇaraya Caritra*, II-5.

5 *E C*, X, p.262.

6 *Barbosa*, I-p.206,207.

7 *Amukta*, VI-6.

8 *Ibid*, IV-129,133, V-71, *Candrabhanu Caritra*, V-39.

houses also. These umbrellas could not be closed. Some people used cotton and silk umbrellas also.¹

GYMNASTICS

Peddana while describing the rising of the Sun in a simile mentioned indirectly the existence of the gymnasiums. Through his description, we come to know that the ground of gymnasiums were well-prepared for the convenience of the participants with smooth red sand. He compared the rising-sun to the dumb-bell(sangadamu).²

The kings of nobles encouraged the people to participate in the gymnastics so as to improve their physical strength. It seems that there were many gymnasiums all over the country. Du Jarric description of the gymnasiums at Candragiri is exactly like the gymnasium described the Peddana. Du Jarric describes it thus: "The house fitted for this has a yard in the centre, the pavement of which is covered with a layer of lime so smooth that it looks like a mirror, there is a walkaround it, spread over with red sand on which they rest as on a soft bed."³

Fencing, wrestling, dwelling and horse-riding were the games of the period, which reflected the interest of the people in the upkeep of the physical health. Especially, wrestling and duelling were encouraged by the kings. It is said in Kēraḷa Paḷama,⁴ that Vira Narasimharaya encouraged all kinds of exercises (which infused war-like spirit among the people). It had gone to that extent that people were taught to believe that settling disputes by way of fighting duels before the Raya is a honourary thing. Even the goldsmiths, if any quarrel arose had to settle their disputes by duels before the Raya.⁵ Barbosa gave a

1 *Navanatha Caritra*, p.275.

2 *Manucaritra*, III-59

3 Du Jarric, I, p.684-5, Quoted by Rev. Fe.Heras in *Aravidu Dynasty*, I-pp. 313-14

4 *F.S.* II - 104.

5 *Ibid*

vivid description of the duels which he had witnessed.¹

Swimming and horse-riding were the two other games which come under physical exercise. Both men and women practised these.

Women also did not lag behind in playing the games which promoted their physique and enabled them to take up any kind of job in royal court. Women of this period were trained in wrestling and duelling also.² The account of foreign travellers frequently referred to the existence of the women-wrestlers in the king's service.³ Some women participated in the wars along with their husbands. Gangadevi, the author of *Madhura Vijayamu*, participated in the war along with her husband Kampana.

Dancing was the most favourite art in those days. It attracted the attention of foreign travellers. They described the performance of dancing girls on various occasions.⁴ The women of royal family also were sent "to be taught to dance". Describing a royal palace, Paes says, "At the end of this house on the left hand is a painted recess where the women cling on with their hands in order better to stretch and loosen their bodies and legs; there they teach them to make the whole body supple."⁵ Dancing also helped the women to keep their bodies in good condition.

SLEEP

Sound sleep increases health and strength. *Mārkaṇḍēya Purāṇamu* and *Viṣṇupurāṇamu* gave suggestions with regard to the arrangement of bed in a good place and position, that one could enjoy sound sleep and fresh air. The cots which were dirty, loosely or wrongly woven, whose bed was lower than the frame, which was having bugs were forbidden to sleep on. A long-cot which was having a pillow, mattress,

1 *Barbosa* I-pp.190-91.

2 *The Vijayanagar Empire*, p.30; E.C.VII, Sk.2.

3 *Ibid.*

4 *Elliot, History of India*, IV-p.118; FE, pp.233-34 & 371.

5 *FE*, p. 208.

mosquito net and fancy cloth hanging arranged in a place where air breezes well, was prescribed as the best one to sleep on.¹ The beds were to be arranged keeping the head-pillow be in the east or south. People were advised not to keep their heads to the north or west since it was believed that it would cause ill-health.² Though these things were not explained in a rational way, these formed the guide lines to the common people (which can be seen prevalent even today).

Rasikajanamanobhirānamu,³ and *Hamsavimsati*⁴ gave the lists of things that were arranged near the beds. They included the mosquito nets, decorative curtains, betel-bowl, lime, civet, saffron, aloes, camphor, musical instruments and shoes.

The common people might have used ordinary cots which were woven with cord or with cane.⁵ The poor might have slept on the mats stretched on the floor as Linschoten mentioned: He writes about the Dombara people of Tēlugu and Karnataka areas that they had only "Mats of straw both to sit and lie upon".⁶

Mosquito nets also seem to be quite common in those days among the rich and the middle class people.⁷ In Winter and rainy seasons, rich people used to keep fire under their cots which was kept burning mild with coal.⁸ Common people used either coal⁹ or goat-dung¹⁰ for this purpose.

In grisma(summer) people preferred to sleep in a place which had become cool by the rays of the Moon and where fresh air breezed, anointing their bodies with cool sandalwood paste.¹¹

1 *Markandeyapurānamu*, III-234.

2 *Marjebdevapurānamu*, III-235.

3 *Rasikajana*, III-141; IV-4.

4 *Hamsavimsati*, III-52.

5 *Sivaratrimahatmyamu*, II-70.

6 Linschoten, *Purchas, Pilgrims*X, pp.247.

7 *Amukta*, V-104; *Kalapurnodayamu*, II-15.

8 *Amukta*, IV-135.

9 *Amukta*, V-104 & 118.

10 *Ibid*, IV-134.

11 *Ibid*.

DIETETIC HABITS AND ARTICLES OF DIET

Food is the main cause of the development and nourishment of the body. According to Ayurveda food plays the key role in the cause and cure of a disease. Therefore according to Caraka, "one endowed with intelligence and desirous of maintaining health should bestow great care upon everything connected with food, deportment and practices."¹ All the contemporary scholar-physicians did not forget to stress on this basic principle.²

Vēmana says that food is the main cause in the upkeep of the health and nourishment of the body. In many of his verses, he lays stress on the importance and necessity of nutritious food for everybody to get strength and lustre.³ He says that food is capable of either giving life or killing a person.⁴ In another context he explains that food first transforms into the *bindurasa* and finally develops into *bīja*,⁵ and therefore food prepares the human beings to indulge in sex and lack of food kills the desire.⁶ Therefore food was regarded as having a key role in the creation.

FREQUENCY OF MEALS

The food habits of the people have been explained in detail in the contemporary literary works of medieval Andhradesa. Dining twice in a day, it seems, was the usual custom of the day among the elders. Krishnadevaraya and Vēmana expressed the same opinion that it was an ideal characteristic to a householder to dine twice in a day.⁷ Caraka prescribes two meals a day, one between 9 a.m. and 12 noon and the

1 C S, I-755.

2 *Basavarajiyamu*, v. 22 to 30.

3 *VP*, 4254 & 4256.

4 *VP*, 156.

5 *Ibid*, 165.

6 *Ibid*, 154 & 155.

7 *Amukta*, IV-278; *VP*, 3911.

other between 7 and 10 p.m. with previous stimulation of the appetite by salt or ginger.¹ In *Āmuktamālyada* we find the information about the time to the lunch. Here it is said "The stomach will be cleaned by 12 noon (*Aparāhna samaya*) and it is the right time to dine".²

It seems to be usual among the common people to take 'calid' (the remaining food of the previous night) in the morning in addition to lunch and supper. The poor owing to their poverty, satisfied with a single meal in the day and drinking 'ambali' in the night. Monks and saints lived on one meal a day as laid down by the dharma sastras.³

FASTING

In Ayurveda, fasting is advised only as a therapeutic measure. But it seems that the people used to fast on Saturdays and some festive days such as Ekadasi,⁴ Nuniz write: "the people of this country always fast on Saturdays and do not eat all day even at night, nor do they drink water, only they may chew a few cloves to sweeten breath".⁵ Paes also gives almost the same information in his account.⁶ The contemporary literary works also referred to this habit of fasting on Saturdays. Srinatha in *Bhīmakhandaṃmu*, describes a guru fasting on Saturday in the day time and taking meals along with his disciples in the night.⁷

Vēmana, the *Prajākavi*, refuted the habit of strict fasting. In his opinion, if the digestive fire is not supplemented with food, it destroys the *mala* present in the intestines, resulting in the fasting person enjoying the *mala*, instead of food.⁸ He further says that if the vitiated *mala* is accumulated in the abdomen, the *annarasa*, also gets vitiated⁹

1 C S. I.

2 *Amukta*, IV-281.

3 *V.P.*, 3911; *Amukta*, IV-196.

4 *Bhīmakhandaṃmu*, II-67.

5 *The Vijayanagara Empire*, p.156.

6 *The Vijayanagara Empire*, p.43.

7 *Bhīmakhandaṃmu*, II-67.

8 *V.P.* 1439.

9 *V.P.* 1251.

and leads to disease. He supported the person who fasts for half a day and called him a *sadōpavāsi*.¹

QUANTITY OF MEALS

Regarding the procedure of taking meals *carucarya* says: "Stomach must be divided into four parts and should be filled in two parts with solid food, one part with drinking water and remaining part should be left vacant for the movement of air."² A reference in *Kāśikhandamu* the contemporary literary work confirms the existence of this principle in prevalence among the people,³ one should take diet in moderate quantity.⁴ *Vēmana* says that the excessive eating of food leads to death and devoid of it also equally effects the body. Thus it is capable of either giving life or killing a person.⁵ In his opinion, eating in a moderate quantity and following good regimen are the best methods of behaviour.⁶

In spite of all these ideal regulations propagated, some people, especially the Brahmins used to eat excessively on the festive occasions. Barbosa writes about them thus: "some are great eaters and never work except to feed well; they will start at once on a 'six days journey' only to get a good bellyfull".⁷

HOW TO SIT AT MEALS

The contemporary literary works give us information about the rules followed by the people while sitting at meals.⁸ People observed the

1 *VP*, 3911.

2 *Carucarya*, 41.

3 *Kasikhandamu*, V - 222.

4 *Carucarya*, 43.

5 *VP*, 156.

6 *Ibid.* 4022.

7 Barbosa, Dames, I, p. 217.

8 *Kasikhandamu*, V-221, Markandeya puranam, III-228.

principle that one should not talk while taking meals and should be pleasant; here we may note briefly the remarks of foreign travellers on the etiquette, while taking meals. Abdul Razaq says, "The brother of the king (Devaraya II) had constructed a new house and invited the king, and the nobles of the state to an entertainment. The custom of infidels is, not to eat in the presence of one another."¹ Nuniz also observes the custom thus : "the custom there is to place on the table all that there is to eat and drink, no man being present to serve those who are seated, not being kept outside but only those who are going to eat."²

But on the other hand, there are some references to prove the fact that the people laid much importance to *pankti-bhōjana*.³ In *Cārucaryā*, it is mentioned one should dine, while his wife serving the food, with his relatives and friends and one should never eat alone. If there are not many in number, he should take his meals along with atleast one or two.⁴ In *Viṣṇupurāṇamu*, the taking of meals by a house holder was described as it was laid down in *Cārucaryā*. We find in *Panduranga Māhātmyamu*, Nigama Sarma taking meals while his sister was serving the food.⁵ There are many such references⁶ to disapprove the statements of Abdul Razaq and Nuniz. On festive occasions, the kings also used to dine along with their relatives and followers. Describing the coronation day, *Rāyavācakamu* mentions, the Raya next dined in the company of his son-in-law, sons, relations, friends and followers. After having washed the hands in scented water, he performed the *acamana*.⁷ But in one way their statements might be correct. It might be the custom in the Royal house-hold and in the house of the feudal lords as they were very careful against food-poisoning.

1 Elliot, *History of India*, IV-p.115.

2 Robert sewel, F.E.P.295.

3 *Carucarya*, V335 to 35, *Visnupuranamu*, IV-211.

4 *Carucarya*, 33 and 34.

5 *Panduranga Mahatmyamu*, III.

6 *Bhimakhandaamu*, II-67, *Krisabhiramamu*, 119 and 122.

7 *F.S.II* - 109.

We find references to the directions as to the articles of the diet sequence of dishes, water drinking at meal, careful hygiene of the mouth after meals, etc. in the contemporary medical texts as well as general literature.

Now let us observe first the directions with regard to the sequence of dishes, drinking of water at meals and hygiene of mouth. As the regulation of articles of diet needs special attention it will be dealt further.

SEQUENCE OF DISHES

Viṣṇupurāṇamu lays down the sequence of dishes at meals thus “firstly, sweet dishes are to be eaten, next salty, sour and bitter items, and after that the dishes with pungent taste, soup and buttermilk. If taken in this sequence, one gets health and strength.¹ The sequence of dishes as mentioned in *Cārucaryā* tallies with this.² Excessive taking of sweets results in indigestion and diabetes; ... excessive eating of salt in loss of brightness in the eyes and excessive bitter and sour items tends to untimely old age.³ These regulations laid down by *Cārucaryā*, a treatise on personal health and hygiene, so deeply influenced the minds of the people that these can be found still followed in the society.

DRINKING OF WATER AT MEALS

Drinking of water at meals should be moderate. Water-drinking at the commencement of meals tends to thinness by delaying digestion, copious drinking in the middle of meals is good to be forbidden.⁴ Two parts of the stomach should be filled in with meals, one part of it with

1 *Viṣṇupuranamu*, IV.

2 *Carucarya*, V - 37.

3 *Ibid*, 38.

4 *Carucarya*, V. 40.

water and the remaining one part should be left for the movement of air.¹ One should not take food instead of water in thirst and should never take water in stead of food in hunger. If so taken wrongly, that person will become a victim to cancer.² Excessive drinking of water during meals leads to indigestion.³

HYGIENE AFTER MEALS

Kāśīkhaṇḍamu informs us that people paid much attention on the washing of their hands very clean after meals.⁴ *Cārucaryā* mentions that one will not get eye diseases if his hands be washed clean after meals.⁵ And one was supposed to clean his mouth clean by gargling with water. Taking *tāmbūla* after meals was regarded as the best method to keep the mouth clean and fragrant.

A SHORT WALK

“Sleeping immediately after meals tends to the growth of stomach; taking rest leads to ease and delight. Taking a short walk after meals promises long life. Whereas a long and hasty walk leads to untimely death.”⁶

ARTICLES OF DIET

Vēmana propagated among the people that a nutritious food is capable of improving intellect.⁷ Krishnadēvarāya in his *Amuk-*

1 *Carucarya*, 41.

2 *Ibid*, v.39.

3 *Ibid*, v.46.

4 *Kasikhandamu*, v-223.

5 *Carucarya*, v.45.

6 *Ibid*, v.42.

7 *V.P.*, 625.

tamalyada expressed the same opinion saying that “ the main reason for the destruction of knowledge or intellect is the taking of bad food and so one should try to bring change in food to destroy ignorance.”¹

As a result of the extremities in the climatic conditions in South India, the people living there have lesser digestive power. Hence they were prescribed to take only the light food items such as rice, soup, gruel, buttermilk, lemon juice, milk, sugar, etc. as against the spirutuous drugs and non-vegetarian food.² The information coming from the contemporary literary sources proves that both the learned and the common people followed the regulations laid down in the medical texts.³ The former by the knowledge gained out of books and the latter either on the advice of the physicians or elders or on the basis of their previous experience.

Some important articles of food were various kinds of cereals, dhals, fruits, vegetables, oils, milk, butter, ghee, ginger, pepper, garlic, nuts, sugarcane, honey, spices, meat and fish. Foreign travellers referred to the abundance of these articles in this country. While describing the regions of Hampi and Penugonda, Paes writes: “These dominions are very well-cultivated and very fertile, and are provided with quantities of cattle, such as cows, buffaloes and sheep; also of birds, both those belonging to the hills and those reared at home, and this in greater abundance than in our tracts. The land has plenty of rice and Indian-corn, grains, beans, and other kinds of crops which are not sown in our parts; also an infinity of cotton. Of the grains there is a great quantity, because besides being used as food for men it is also used for horses, since there is no other kind of barley; and this country has also much wheat and that good”.⁴ Nuniz gives additional remarks on the abundant supply of meat, fish and fruits in the markets thus,; “Everything has to be sold alive so that each one may know what he buys this atleast so far as concerns game-and there are always over

1 *Amukta* IV - 194.

2 *Bhava Prakasa*, Purvakhanda, IV.

3 *Amukta*, V-157.

4 *The Vijayanagara Empire* p.19.

flowing with abundance of fruits, grapes, oranges, limes, pomegranates, jack-fruit, and mangoes, and all very cheap.”¹

The dishes in the houses of rich people consisted of many recipes. The brahmins were pure vegetarians. John Huigen Van Linschoten noted that they (Brahmins) ate not anything that hath life, but feed themselves with herbs and Rice.”² Nuniz and Barbose also gave the same kind of information regarding this. Barbosa described that their food consisted of honey, butter, rice, sugar, which stewed like pulse and milk.³

Not only the Brahmins, the people who followed Saivism remained strict vegetarians. That’s why the Reddy kings who were Saivas seem to be the vegetarians, from the description of their meals in the contemporary literary works.⁴ Vaisyas, Jains and the Lingayats also took only vegetarian food. Barbosa wrote that the Jangamas ate neither flesh nor fish.⁵

From the works of Srinatha, we come to know that the rich people prepared a great variety of dishes for their meals and especially when they received guests and on festive occasions. From the list given by him, we come to know that their meal consisted of many curries which were dressed with many spices and drug substances-cum-dietetics, flesh, ghee, soup, pulse, dhal, syrap, juices of various fruits, sweet curd and honey.⁶

In addition to these, a great variety of edibles were added to their meals such as *laḍḍulu*, *iḍḍenalu*, *kuḍumulu*, *appaḍamulu*, *ippaṭlu*, *jil-lēḍukāyalu*, *dōselu*, *sēviyalu*, *angarapoḷiyalu*, *pōvelu*, *cakkilamulu*, *mōrunḍalu*, *arisalu*, *varugulu*, *cirugaḍamulu*, *baḍidamulu*, *roṭṭelu*, *cāpaṭlu*, *pāyasamulu*, *vaḍiyamulu*, etc.⁷ We find many such references

1 *The Vijayanagara Empire*, pp. 38-39.

2 Linschoten, Purchas, *His Pilgrims*, X, p. 256.

3 Barbosa, I-pp. 217 and 218.

4 *Andhrula Sanghika Charitra*, p. 175.

5 Barbosa, I-p. 218.

6 *Bhimeswara puranam*, I-61.

7 *Haravilasamu*, VI-56, *Bhimeswarapuramamu*, I-61. *Kasikhandamu*, vii-186.

to the description of the dishes of Andhras in those days.¹

When Abdur Razaq visited Vijayanagar court, provision was made for the supply of two sheep, four couple of fowls, five maunds of rice, one maund of butter one maund of sugar and two *Varaha* in gold.² Nuniz gives a list of food stuffs which constituted the dietary of the Vijayanagar rulers. "These kings of Bisnaga eat all sorts of things, but not the flesh of oxen or cows which they never kill in all the country of the heathen because they worship them. They eat mutton, pork, venison, partridges, hares, doves, quack, and all kinds of birds; even sparrows and rats and cats and lizards." Here the knowledge of Nuniz with regard to the dietetic habits seems to be very superficial. Suravaram Pratapa Reddi and T.V.Mahalingam condemned it saying "nobody at no other age did eat lizards." The king and other lords preferred to eat wild birds who dwell in a place where there was no sign of movement of people.³ In addition of this fact, we find another fact from the writings of the foreign travellers that meat, fish and pork was available in abundance and at very cheap rate all along the country.⁴ Hence the statement of Nuniz can be regarded as very superficial and exaggerated one and cannot stand for critical review. These travellers stressed on another fact that the butcheries were maintained in very clean surroundings.⁵

The meals of common people was simple but nutritious. It was their custom to rear small gardens in the backyard of their houses, especially with banana plants and grape pandels.⁶ We find many references to the existence of gardens in and around the towns and cities also both in indigenous⁷ and foreign sources.⁸

1 *Srngaranaisadhamu*, VI-120; *Hamsavimsati*, I-105.

2 Elliot, *History of India*. VI-p.113.

3 *Amukta*. IV-279.

4 Nuniz, *The Vijayanagar Empire*, p.39.

5 *Ibid*, p.39.

7 *Panditaradhya Caritramu*, Parvataprakaranam, pp.357-58.

8 *The Vijayanagar Empire*, p.42.

Here we may note a point that the food of the people varied according to the physical environment, habits and customs of the region. That's why we find variations in the nature of food articles and the preparation of dishes from one place to that of another within Andhradesa. The coastal regions of present Krishna and Godavari districts were very rich and fertile and the people there enjoyed nutritious food and their meal consisted of many preparations.¹ From the works of Srinatha, we come to know about the food preparations of various regions of Andhradesa, as he had wandered from place to place in his life time. He described the articles of food of different places in his works incidentally. He, who was accustomed to a rice of good quality and alluring recipes, felt very sad and could not adjust himself to the food of Palnadu area. In those days, the Palnadu area was not fertile and the customs and habits of the people too were completely different to that of the other coastal areas of Andhradesa. They cultivated the cereals like maize and articles of their food mainly consisted of millet, milk and other milk-products and the green vegetables.² But it is not probable to underestimate the value of the articles of their food. The modern scientists also advocate the uses of these cereals, the starch that is prepared out of it, the green vegetables, milk and milk products such as curd, buttermilk, ghee, etc. We notice from the descriptions in the literary works that the people of Palnadu area both men and women were strong enough to work hard in the fields and at home also. They were notorious for their chivalry.

The tribals such as *cencus* used to hunt the animals and birds and eat flesh of those animals. They ate the fruits available in the forest such as *nērēḍu* (jack fruit), *nelayūṭi*, *konḍamāmiḍi*, *donḍa*, *pāla*, *nemmi*, *barivanka*, *ciṭimuṭi*, *kalive*, *toḍivenda*, *tumiki*, *jāma*, *gangarēnu*,

1 *Kasikhandamu*, iv-119.

2 Srinatha's *caṇu* verses:

velaga, mōvi, balusu, bīra, kommi, garji, mēḍi, etc.¹ They used honey, *cārapappu* and various other kinds of root-vegetables in their food.

BETEL

Tāmbūla was suggested to be taken after meals for good health. The people believed that it was conducive to strengthen the teeth, to cool down the over-heat of the eyes, to cure the nasal diseases and all other facial diseases.² Almost all kinds of sources testify to the existence of the use of betel by the people. Betel leaf and arecanut were cultivated in the empire.

Nuniz mentions about the habit of eating betel by the people that next to millet, it was the “most consumed in the land” and “betel which is a thing that in the greater part of the country they always eat and carry in the mouth.”³ All the foreign travellers accepted the importance of it as a herb.

Abdur Razaq narrates, “This betel is a leaf which resembles that of an orange, but is longer. It is held in great esteem in the Hindustan, in many parts of Arabia and the kingdom of Hormus and indeed it deserves its reputation. It is eaten in this way: they bruise a piece of areca nut, which they call *supari*, and place it in the mouth; and moistening a leaf of betel or *pan* together with a grain of quick-lime, they rub one on the other; roll them up and place them in the mouth. Thus they place as many as four leaves together in their mouths and chew them; sometimes they mix camphor with it, and from time to time discharge their spittle which becomes red from the use of the betel. Some of them eat flesh, they eat all kinds except beef and pork, and yet, nevertheless they cease not to eat this betel all day.”⁴ With regard to the procedure of taking betel, *Carucarya* says that one

1 *Srikalahastimahatmyam*, III-1 to 13.

2 *Carucarya*, v.401-420.

3 *The Vijayanagar Empire*, p.144.

4 *The Vijayanagar Empire*, p.24.

should spit the juice of the first two chewings¹ and the juice that comes after is very good for health and acts as a nectar.² Pietro della Valle and Abdur Razaaq observed this practice. The former mentions: "They swallow down only the juice after long mastication and spit out the rest."³ Abdur Razaaq, though ignorant of the purpose of this act, noted that they "from time to time discharge their spittle which becomes red from the use of the betel."

Generally, arecanut, quick lime or the *churna* of the shells, *kacu*, *kairavadi* and camphor were added to the betel-leaves and taken.⁴ Rich people used calcinated pearl-powder which was believed to be conducive to develop intellect. Some times musk, cloves and dry ginger⁵ added to it which are all spices-cum-herbs. *Abhilasitarthacin-tamani*, a work said to be written by the Eastern Calukyan king Someswara, gave the procedure to prepare the things which were used in betel thus: first are canut should be mixed with camphor and water; to it should be added *srikhandamu* and musk and got it be dried; then pearls should be calcinated after taking it out from the *puta* arranged with dried cow-dung. *Takkōlamu* (*Clarodendium*), *Jāji*, etc., were to be ground to paste in a mortar and were to be made as pills and while taking *tāmbūla*, camphor, musk-powder, etc., were to be added to the *tāmbūla* in addition to the above pills.⁶

Many merits were attributed to *tāmbūla* if taken in right way as prescribed by the scriptures. Foreign travellers recorded the used which were popular among the people and which they observed. Abdur Razaaq narrates the merits of betel thus: "This marticatory lightens up the countenance and excites an intoxication like that caused by wine. It relieves hunger, stimulates the organs of digestion, disinfects the breath, and strengthens the teeth. It is impossible to describe, and delicacy forbids me to expatiate on its invigorating and

1 *Carucarya*, v.422.

2 *Bhavaprakasa*, Purvakhanda, IV-191.

3 Pietro della Valle, *Travels*, I, pp. 36-37.

4 *Rasikajana Manobhramamu*, I-78.

5 *Manucaritra*, II-24; *Amukta*, V-93.

6 *Andhrula Sanghika Caritra*, p.36.

aphrodisiac virtues." He further says with exaggeration and bias that "it is probably owing to the stimulating properties of this leaf and to the aid of this plant, that the king of that country is enabled to entertain so large a seraglio".¹

Paes who visited the Vijayanagar Empire during the reign of Krishnadevaraya, also mentions the significance of betel as a herb. He says, "This betel is a herb which has a leaf like the leaf of the pepper, or the ivy of the country; they always eat this leaf, and carry it in their mouths with another fruit called areca. This is something like a medlar, but it is very hard, it is the best provision for those who do not eat as we do."²

Vēmana too advocated the use of betel with lime as a cure to an infectious tooth.³ It seems that it was compulsory in case of a woman in childbed to be taken⁴ as it was believed to be an invigorating one. It is also believed that it reduces *vāta*. But it was forbidden in case of the patients who were suffering from consumption, mental imbalance, anemia, eye-disease, chest-pain, stomach-ache, motions and *kāsa*.⁵

REGULATION OF MARITAL LIFE

Child marriage was very much common in those days. Especially among the Brahmins, it was compulsory to get their daughters married at an early age. With regard to the marriageable age, Manu suggested thus: "A man aged thirty years shall marry a maiden of twelve who pleases him, or a man of twenty four, a girl eight years of age; if (the performance of) his duties would otherwise be impeded, (He must marry) sooner."⁶ Perhaps keeping the Hindu scriptures in

1 Elliot, *History of India*, IV - p.114; Major, *India*, p.32.

2 F.E., pp.243-35; *The Vijayanagara Empire*, p.24.

3 VP, 2875.

4 *Kalahastimaharnyamu*, IV - 10.

5 *Bhavaprakasa*, Purvakhanda, IV - 192-193.

6 *Manusmṛiti*, IX,9,p344.

mind, the Brahmins of this period celebrated the marriages of their daughters at a tender age. *Visnupuranamu*, a contemporary literary work by Vennelakanti Surana, refers to the marriageable age of a man and a girl. In this work, the author says that a bride should be of one third age in that of bride groom's age.¹ Ferishta, the Mohammadan Historian writes in his account that Nehal, the Mudgal beauty and the daughter of a goldsmith was to have been married to a youth of her own caste in childhood agreeably to the custom of Hindustan," but "she requested that the ceremony might be delayed with such earnestness that it was put off.² Linschoten confirms the impression of Ferishta when he says "when the woman is seven years old and the man nine years they do marrie; but they come not together before the women be strong enough to bear children.³ It seems that few other castes, following the foot-steps of Brahmins celebrated their daughters' marriage in childhood. But it was the usual custom among almost all the other castes celebrate their daughters' marriages after maturity.

After giving birth to a child, the women were forbidden to participate in coition till the child was found getting teeth.⁴ Krishnadevaraya in his *Amuktamālyada* refers to this thus; "As the women-folk in the world who were forbidden the *puruṣaṅgatya* felt glad on finding their children getting teeth thinking that their husbands would join them for enjoyment after a long time.⁵

Dharmasastras laid down that coition should take place only during the *ritu* period and prescribed the right time to be observed.⁶ The first four days after menses and all the festive and holy days were strictly forbidden for coition to people of all castes. *Kṛīḍābhirāmanu* gives evidence to the fact that even the *candala* (outcaste) women

1 *Visnupuranamu*, IV-182

2 Ferishta, Briggs, *The rise of Mohammadans*, II,p.380.

3 Linschoten, purchas, *Pilgrims*, X p.256.

4 V.Sankara Sastri, 'Parahita Samhita', *Sridhanwantari*, October, 1951,p.

5 *Amukta*, V-116.

6 *Markandeyapuramamu*, III-239-241.

followed this. It can be observed that many festive and holy days were installed during rainy and winter seasons (especially in August and November) during when it was advised to be kept under control. The month *Āṣāḍha* (July 15- August 15) was strictly forbidden for co-habitation in case of newly married couple. Krishnadeveraya also referred to this principle in his work *Āmuktamālyada* while discussing the *rājaniī*.¹ Vēmana says that woman without sexual indulgence ages earlier² where as excessive indulgence in sex by men is prohibited.³ He advises men to keep hunger, anger and sex-desire under control.⁴

1 *Markandeya Puranam*, IV - 278.

2 *VP*, 4110.

3 *Ibid.* 3448.

4 *Ibid.*, 1077.

RTUCARYĀ

The indigenous medical science had an indispensable relation with astronomy. The physicians believed that the seasons of the year have also an effect on the tridhatu and the climatic characteristics of heat and cold of various seasons was one of the causes for their imbalance. They observed that the increase and decrease of diseases, depended on the movement of the planets and the nature of the herbs or diet taken by the patient as a remedy to their evil influence. Hence the dietetic habits changed in accordance with the change of seasons. These modifications which the dietetic regulations undergo according to the change of season are called *rtucaryā* in medical terminology.

According to the division of seasons by Bhāvamīśra, the South Indians would be in full strength and vigour for two months in the season of *Hēmana*, average strength for four months in the seasons of *Vasanta* and *Sarat*, very little strength during the seasons of *Grīṣma*, *Prāvṛt* and *Varsa*.¹ As a result of the extremities in the climatic conditions, they would not have proper digestion. Hence they were prescribed to take only the light food items such as rice, soup, starch, buttermilk, lemon-juice, sugar, ect., as against the spirituous drinks and non-vegetarian food.

Krishnarāya laid down in *Āmuktamālyada* a maxim that the king should take massage of the body, bath, diet, anointment to the body, clothing, flowers, etc., in accordance with the seasons.² We find another reference³ in his work to the fact that the people used to increase or decrease the quantity of food according to the growth or decline of the Moon.

From the references in contemporary literary works, we come to know that the common people also followed the regimen in accordance with the seasons. In winter and rainy seasons people liked to take the food consisting of cooked rice, pickles, dried stuffs, green

1. *Bhāvaprakasa*, part I, Ch. IV.

2. *Amukta*, IV - 280.

3. *Ibid*, V - 157.

vegetables such as *alarka*, *kurataka*, *tuvinna*, *drōṇa*, *tanṭekūra*, *cintaciguru* which were cooked in oil; curd, butter and buttermilk which were the products of cow-milk, etc.¹

In *Āmuktamālyada*, Krishnadevaraya described the preparations of the food of the people in the three seasons. In the rainy season, their food consisted of rice, dhal, four or five fried curries, preparations made of *vaḍiyamulu*, *varugulu* (sun-dried vegetables) and curd.² In this season, the digestive system is weakened; therefore one was advised to take light food. Massage, baths, residence in dry place, etc., were also advised.

In winter, their dishes consisted of punugurajana rice (a kind of rice which according to medicine are conducive to create fire *uṣṇa* in the body and appropriate to take in winter),³ the hot curries which were dressed with pepper-powder, the pickles which were prepared by mixing the gingely-powder, *pāyasamu*, hot ghee and milk.⁴ According to medical works also one was advised to take diet in moderate quantity, things consisting of sweet, light, cold, bitter and which lessen *pitta* during this season.

In *grīṣma* (summer), the rice which was not so hot white in appearance, sweet soups, *timmanamulu*, light-gruel, sugar-cane juice, coconut-water, various juices, fruits (bananas, mangoes, cucumber grapes, pomegranate, etc.),⁵ drinking-water which was spiced and cooled, mangoes which were soaked in honey and light-butter milk were the items of their food.⁶ Salt, sour, pungent and hot things did not include in the items of food in this season.

In summer, people took fish and mangoes as they were available in that season. Though these were conducive to increase the heat of the body which is the result of disharmony in the *dhātus*, people used to take some preventive measures by taking some other food stuffs

1 *Amukta*, IV - 134 and 135; *Pancatantram*, I-676 and 677.

2 *Ibid*, I - 80.

3 *Amukta*, I - 67.

4 *Ibid*, I - 82.

5 *Ibid*, I - 81.

6 *Ibid*.

such as water of the coconuts which were cooled in the wet sand, sugarcane-juice, etc.¹ The people travelling under the sun of summer used to keep tamarind and sugar in their mouth to escape from extreme thirst. They used to carry along with them the food consisting of curd, cloves, salt, ginger and orange juice tied in the leaves of areca.²

The calivendras, established during the summer season for relief by the state, supplied not only the drinking water but also the drinks consisting of drug-substances such as ginger, lemon salt, jira, etc., to the travellers free of cost.³

People observed *Rtucaryā* in their dressing, toilet and ornaments also. To save body and skin from extreme heat, anointment of cold sandal-wood paste and flowers were extensively used. Pearls were also worn to reduce the heat of the body. A paste made with honey-wax was put on by the ladies to cure the chapped lips in winter.⁴

SOCIAL AND DOMESTIC HYGIENE

The towns and cities were built very systematically. Houses were arranged "according to occupations in long streets with many open spaces."⁵ The contemporary literary works and the inscriptions also give evidence to this kind of town-planning. In *Kriḍābhirāmanu*, Orugallu was described as streetwise. Each street was occupied by different castes. Various streets described in *Palnāṭivīracaritramu* are Brāhmaṇawāḍa, Balijawāḍa, Kummariwāḍa, Kōmaṭivīdhi, Vēśyawāḍa, etc. Here and there, in the main centres, there were arranged grocery shops, apothecary shops, saloons, public bathrooms, public meeting places, *paṇḍyaśālas*, etc. Temples were constructed in villages and towns.

1 *Amukta*, II - 68.

2 *Candrabhanu Caritra*, I-161; *Amukta*, IV-35.

3 *E I*, VI, 1022 (s.1422); *S II*, V, 1342; *Hamsavimsati*, II-159.

4 *Amukta*, V-100.

5 Barbosa, I, p.202.

In the construction of the houses, the people followed some principles laid down in the *sastras*.¹ The houses of the rich people appear to have upper storeys also.² Their houses consisted of many rooms such as drawing room, dining-room, bed-room, labour-room, kitchen, etc., with gardens around the house.

The houses of the common people also consist of atleast three or four rooms i.e., *varandah*, a hall, a bedroom, kitchen, and a *prasutigrha*. A separate shed was built for the cattle. Every house was having a well and a garden with coconut, lemon and other trees.³ There was a custom to allot a room separately for the delivery of the women in the joint families. The newly delivered baby and the mother reside in that room. Nobody could enter that room without taking the permission of the old women of that house. They kept its surroundings clean and hygienic.

Describing the houses of the poor, Linschoten says, "they dwell in little straw Houses, the doors whereof are so low, that men must creepe in and out."⁴

The fact that the people gave much importance to the cleanliness of the surroundings can be evidenced from the references to the customs of the people in the inscriptions, contemporary literary works and the accounts of the foreign travellers. Lime was referred as the best substance for the purification and cleaning.⁵ The people used it in keeping surroundings clean and in purifying many others such as water.

An inscription dated S.1442(A.D. 1520-21) from Kondavidu states that Saluva Goparasayyan 'got the spires of the temple of the god Raghunayaka whitewashed'.⁶ In the same way, the people took interest in getting their houses also whitewashed. It can be proved from the references in the literary works of the period. Especially the

1 *Palnativracaritra*, p.119.

2 *Ibid*, p.119; *Amukta*, IV-135; *Kasikhandamu*, I-1 25.

3 *Sukasaptati*, III-48.

4 Linschoten, *Purchas, Pilgrims*, X, p.262.

5 *VP*, 4873.

6 *E I*, VI, p.232.

compound walls and the drawing room¹ was described as being whitewashed.

Another custom with regard to the domestic cleanliness was the smearing of the floor with cow-dung. It was the primary duty of the housewife to keep the surroundings of the house by sweeping, sprinkling water and decorating the frontyard with 'muggu'.² And once in a week, they used to smear the floor of their houses with cow-dung and decorate by drawing so many designs making them look pleasant. Some people used to smear the walls also. This custom which was prevalent every where in our country attracted the attention of Pietro della Valle. He writes thus: "When we arrived at this town (which he calls Tumbre) we found the pavements of the cottages were varnished over with cow-dung mixed with water; a custom of the Gentiles in the places where they wont eat, as I have formerly observed. I took it for a superstitious Rite of Religion; but I since better understood that it is used only for elegancy and ornament, because not using, or not knowing how to make; such strong and lasting pavements like ours, theirs being made slightly of Earth and so easily spoyld, therefore when they are minded to have their plain smooth and firm, they smear the same over with cow-dung tempered with water, in case it be not liquid (for if it be there needs no water), and plaining it either with their hands or some other instrument and to make it smooth, bright, strong and of a fine green colour, the Cows whose dung they use never eat anything but Grass, and it hath one convenience, that this polishing is presently made, is soon dry and endures walking, or anything else, to be done upon it, and the Houses wherein we lodg'd we found were preparing thus at our coming, and presently dry enough for our use. Indeed this is a pretty Curiosity, and I intend to cause tryal to be made of it in Italy, and the rather because they say for certain that the Houses whose pavements are thus stercorated, are good against the Plague, which is no despicable advantage. Onely it hath this evil, that its handsomeness and politeness lasteth not, but requires frequent

¹ *Hariscandropakhyanam*, V-194.

² *Sukasaptati*, III-48.

renovation, and he that would have it handsome must renew it every eight, or ten days, yet, being a thing easie to be done and of so little charge, it matters not for a little trouble which every poor person knows how to despatch. The Portugals use it in their Houses at Goa and other places of India, and in brief, 'tis certain that it is no superstitious custom, but onely for neatness and ornament; and therefore 'tis no wonder that the Gentiles use it often and perhaps every day, in places where they eat, which above all the rest are to be very neat".¹ This vivid description of Pietro della Valle is enough to understand the custom and the purpose and beliefs of the people with regard to this custom. Linschoten also observes this custom thus: "Their Houses are commonly strewed with Cow-dung, which (they say) killeth Fleas".² Some people got the floor of their houses plastered³ with a mixture of lime, gaggery, syrup, oil, etc.⁴

It seems that in some places, people did not pay much attention to the neatness of their surroundings. They used to keep the newly born calves in the rooms they dwell. Srinatha describing a Brahmin house in the Palnadu area said that it was looking ugly with cattlemud, dust, calfdung, spoiled rice and curries, evacuations of infants, dined leaves, old-rags, cooking-pots and bundles of firewood.⁵

Even now we find in some villages of this area the custom of keeping the cattle in their houses especially in rainy season. But in other places, farmers arranged separate places, with fencing, for the calves. We find the description of the houses of various caste-people in many of the contemporary literary works. There, we find the Brahmin houses very clean and neatly arranged and decorated.⁶

The Reddi kings who were very curious in the welfare of their subjects took steps to promote the public hygiene. A popular folk song of those days informs us that the Reddi kings took up the

1 Pietro della Valle, *Travels*, II-pp.230-31.

2 Linschoten, Purchas, *Pilgrims*, X, pp.248.

3 *Sukasaptati*, II-145.

4 *Manucaritra*, V-38.

5 A *Canu* verse of Srinatha, *Canupadyamanjari*, p.126.

6 *Sukasaptati*, III-477.

activities such as getting the streets swept and sprinkled with water. They also took care in keeping the lights in the main roads, arranging pandals in the summer season and maintaining the wells in good condition by getting salt and lime poured into them.¹

PURIFICATION OF DRINKING WATER

The State took care not to allow the people suffer due to lack of drinking water. Many rivers, lakes and wells were dug to meet the needs of the people. But with this, the task was not completed, for keeping the sources of drinking water in good condition is the most important thing. Sometimes the water got polluted causing ill-health to people. Paes gives the causes for pollution thus: "the water in those lakes is for the most part muddy, especially in those where there are no springs, and the reason why it is so muddy is because of the strong wind and the dust that is in this country, which never allows the water to be clear; and also because of the numbers of cattle, buffaloes, cows, oxen and other small cattle, that drink in them."²

The Reddi and Vijayangar kings not only took steps to extend the water supplies, but also in keeping them in good condition. A folk-song which was in praise of the public-welfare activities of the Reddi King (Virabhadra Reddi) ends with the statement that the king gets lime and salt poured into the wells in the villages.³

In those days lime, salt, turmeric powder and 'cilla' seeds were used in the purification of water. Vēmana says that lime is the best means in purification and placed it in high esteem.⁴ Krishnadevaraya refers frequently to 'cilla' seed⁵ and its powder⁶ and to the turmeric powder⁷ as a means in the purification of drinking water.

1 *Andhurla Sanghika Caritra*, p.157-58.

2 *FE*, p.231.

3 *Andhurla Sanghika Caritra*, p.158.

4 *VP*, 4873.

5 *Amukta*, IV-146.

6 *Ibid*, IV-138.

7 *Ibid*, IV-147.

The drinking water supplied to the royal kitchen was drawn from the springs which were kept separate under a supervising officer. The person who won the confidence of the king was appointed in the post. Those springs were kept clean and were always protected from poisoning. Nuniz narrates the care that was taken in this matter thus: "the king drinks water which they bring from a spring, which is kept enclosed under the hand of a man in whom the king has great confidence, and the vessels in which they draw the water come covered and sealed. Thus they deliver it to the women who wait on him, and they take inside to other women, the king's wives."¹ It seems that the people did not like to eat or drink in the vessels used by others. That's why they used leaves to dine in. Especially, the temples, *mathas* and chowtries which provided free meals to the travellers, the poor and the Brahmins, were supplied with leaves daily. A record dated s.1446 (A.D. 1524-25) informs us that while Tirumaladeva Maharaya was ruling the country, Suraparaya, agent of Vakiti Adeppa Nayiningaru, freed the Tammala servants of the temple of Someswara at Gorantla from supplying leaves (used in eating food) to the temple free of cost, on condition that they repaired the temple built the Sikhara, and constructed a compound wall of mud.² Linschoten describes the care that the people took while "they use to drink out of a copper kanne with a soput, whereby they let the water fall downe into their mouthes, and never touch the pot with their lippes".³

Even the butcheries were maintained in neat and clean surroundings. Paes described the availability of mutton in abundance in the country which was "so clean and so fat". He again stressed the point of cleanliness maintained in the butcheries saying that there were also pigs in the houses of some butchers in certain streets so white and clean that he "could never see in any country."⁴ It seems that care was taken by the state to avoid adulteration in the non-vegetarian

1 *FE*, p.356.

2 *ARE.*, 91 or 1912.

3 Linschoten, *Porchas, Pilgrims*, X, pp.248.

4 *The vijayanagar Empire*, p.39

foodstuffs. Nuniz's statements make us to surmise it. He writes, "Everything has to be sold alive so that each one may know what he buys - this atleast so far as concerns game -"¹

Thus the people of Medieval Andhradesa observed the regimen in accordance with the physical environments, climatic conditions, customs, traditions and their economic position. They paid much attention on keeping their surroundings very clean and hygienic. It seems that the state also tried to implement town-planning, cleaning the streets and avoid pollution in the water. The people were also careful against adulteration in the food stuffs.

FESTIVALS AND MEDICAL RELEVANCE

The celebration of festivals aims at achieving socio-religious harmony among the people and to cultivate a disciplinary way of life conducive to the maintenance of good mental and physical health. Among such festivals, *Vināyakachaviti* must be mentioned in the fore-front. According to the puranic story, this festival is celebrated in commemoration of the coronation of Lord Vinayaka as the commander in chief of the divine army. If we observe the method of worship keenly, we can find that it bears a greater medico-religious importance. It is celebrated on the fourth day of the bright fortnight of the month *Bhādrapada* every year. Lord Vinayaka is worshipped on that day to be blessed with good health and success. People worship him with twenty one kind of herbal leaves and many kinds of flowers and offer many delicious dishes.

Every leaf prescribed for worshipping the deity on each of his different names is a medicinal one esteemed by the medical scientists in their prescriptions against many health disorders. Thus the festival of *Vināyakachaviti* offered such an opportunity to gain much knowledge about the herbs. On the festival day, the elderly people used to take their children to the fields after taking bath early in the

1 *The Vijayanagar Empire*, p.153.

morning. They roam about in the fields and in the vicinity of the village to collect the 21 varieties of leaves, identifying them by name. At the time of worship, they offer each kind of leaf according to the recited name of Lord Vinayaka, which indicates the nature and efficacy of the leaf. Like that, 21 kinds of leaves would be offered on the recital of the 21 names of the deity. Without performing this *pūja* (worship), it is propagated by the religious preceptors that one should not look at the Moon that night.

By this, we can understand the following things: this festival is prescribed to be celebrated in the rainy season because all the plants grow healthy with leaves, flowers, vegetables and tender fruits during this month. Every plant can be observed with all its contents and products such as roots, bark, gum, stem, leaves, flowers tender fruits, etc. As the elderly people train their children in identifying and offering 21 kinds of leaves and different flowers at the time of worship every year, the children could be able to identify them easily by the time they become ten or twelve years old.

The condition that one should not look at the Moon on that night without performing the *pūja*, indicates the fact that one should not visit a pharmacist or a physician without knowing the basic knowledge about the herbs. The literary works refer to the Moon the Lord of Herbs and medicines.¹ Some home remedies were propagated among the common people through folk-songs. In one of such songs, we find a reference to a healing technique. It runs thus: "Oh Moon! Tell me the remedy for the relief in the broken leg of a mischievous lad". The answer follows in the same verse thus: "Grind the neem leaves and garlic along with 101 drops of oil into paste and apply it on the leg twice in a quarter day".² In this context, we can understand the reason for the prohibition of looking at the Moon. It indicates that one

¹ *Āmukta*, II-63.

²

should not visit a physician or the medical adviser without having the primary knowledge of the identification of the herbal leaves, flowers, etc. People believed that Lord Vināyaka should be worshipped for the success in any of their attempts. That's why, they had chosen this day as the day of initiation to impart practical training to their children. Ugadi, the first festival in the Telugu country was celebrated on the occasion of the starting of the new year on the first day of the month *chaitra* (March 15th - April 15). Even today every housewife prepares a *prasāda* popularly known as *Ugāḍipachchāḍi*. The ingredients are : neem flowers, the juice of tamarind mixed with jaggery, small pieces of mango and sugar-cane and cumin seeds. All these have medicinal value and the preparation seems to be a medicine. The humour *kapha*, which becomes accumulated during the cold season, is provoked in *vasanta rtu*. That's why the above mentioned *prasada* or *pachchāḍi* is prescribed to be taken during the *vasantartu* to maintain the equilibrium of the *tridhatu*s.

In *varṣa ṛtu* (rainy season), the digestive system is weakened; therefore, one was advised to keep to a diet, should avoid sleeping by day and cohabitation, should drink medicinal liquor in small doses with honey and should take massages and oil-bath.¹ We find that the people observed this season as the season of festivals. The starting month in the *rtu* i.e., *asadha*, prohibits the cohabitation of the newly married couple. Every Tuesday and Friday of the month *Śrāvaṇa* were prohibited for all the couples for cohabitation on the pretext of the festive days. Sleeping by day during this month, according to the opinion of the people, was just inviting the Goddess of Misfortune. Medicinally it aggravates the *vata*, which may cause diseases. *Vāyu* naturally aggravates during the cold and rainy seasons. Then the germs and insects also spread in the nature and wait upon the people to attack. That's why, the worship of *tulasi* (the sacred basil plant), the cleaning of the houses with cow-dung and decorating the houses with *muggu* with lime powder, the special baths etc. were prescribed. It is interesting to note that the annual *jataras* to the epidemic deities

1 Kutumbaiah, P., *Ancient Indian Medicine*, p.133.

mostly take place during the month *Śrāvaṇa* (August-september). People smear the houses and the front-yards with cow-dung or buffalo dung, decorate the houses with neem leaves, put the benzoin on the fire, and perform *pūja* to *tulasi* during these days. They prepare the *prasāda* with cow-milk and offer it along with the soaked and sprouted bengalgram.

Dasara was a festival which occurs in the month *Āśvavujā*. It seems to be the festival of the Mother Goddess, which might have been taken from the popular culture by the later puranic writers into their fold and created some stories about her achievements. About the festival, Nuniz writes thus:¹ "some say that they do this in honour of the nine months during which our lady bore her son in the womb". As in the case of worship of the village goddess, slaughter of animals was performed at the end of the *navarātri* festival, the i.e. tenth day of *Dasara*.²

An important festival observed on the closing day of the month *kartika* was *Dīpāwālī*. It was an ancient prescription of the physicians which became a custom to lit the light with the mustard oil to avoid the influence of the virus, which they called as the influence of the evil-element. But gradually, people started using the sesame oil in the place of mustard oil. Nicolo de Conti describes thus: "they fix up within their temples and on the outside of the roofs, an innumerable number of lamps of oil of *Susumanni*, which are kept burning day and night."³ Peitro della Valle writes, "This night, an infinite number of Torches and Candles were lighted, not only in all the temples but also in all the streets, Houses and shops. After lighting the lights, the people begin to throw up many rockets, and many different sorts of fires", which were made with salt-petre (nitrate of potash), sulphur and sulphate of copper, etc. which help in driving away the evil insects. This festival was celebrated as an occasion of the celebration of the Goddess's success over a *raksasa* who was an eve-teaser.

1 Saletore, B.A., *Social and Political life under vijayanagara Empire*, p.383.

2 *Ibid*, p.385.

3 Major, *India*, p.28, Saletore, *op.cit.*, p.387.

The month *margasira* (Dec 15 - Jan 15) was considered to be an inauspicious month to take up any auspicious function in the Hindu households. Abbe Dubois says, "The feast of Pongal is a season of rejoicing for two special reasons. The first is, that the month of *Magha* (not *Māgha* but *Mārgaśira*) or December, every day in which is unlucky, is about to expire; and the other, that it is to be succeeded by a month, each day of which is fortunate. He further says that the people celebrate it "For the purpose of averting the evil effects of this baleful month of Magha, about four O'clock in the morning, a sort of *Sanyasis* go from door to door of every house, beating on a plate of iron or copper, which produces a piercing sound. All who sleep, being thus roused are counselled to take wise precautions and the guard against the evil presages of the month, by expiatory offerings, and sacrifices to Siva, who presides over it." He described how the women of the house decorate the front yards with cow-dung and *muggulu* which were designed with lime powder. Putting the cow-dung balls on the *muggulu* is still a special feature of this festival. As previously referred, lime and cow-dung were extensively used by them, almost every day to keep the surroundings clean and to prevent the entry of the evil elements which they called as *grahas*, and spirits. The festival was celebrated for three days, i.e., *Bhōgi Sankrānti* or *Sūrya Pongal* and *Kanuma*. The *Bhōgi* celebrations start with the putting of the fire in front of the house. "The second day is called *Surya Pongal* or *Pongal of the Surya* and is set a part of the honour of that luminary" who is regarded as the "Health-promising God". The third day, i.e., *Kanuma* is the festival of the cattle. "In a great vessel, filled with water, they put some saffron, the seeds of *pratti* (cotton) and leaves of the tree *vepa*.(neem) After being well mixed, they go round all the cows and oxen belonging to the house, several times sprinkling them with the water, as they turn to the four cardinal pointsthen only perform this ceremony the women staying away." Thus we can find that the people used neem, turmeric and the cotton seeds incase of cattle also to save them from the diseases. They decorated the cattle with tumeric

on their horns and sounding the bells, flowers, etc.¹ on their necks which were aimed at the protection of the cattle from the malignant *grahas*, evil spirits, and poisonous creatures like snakes.

According to Caraka, during this month (Dec 15-Jan 15), cold increases the digestive fire which enables one to digest heavy and rich food. One was advised to take milk preparations, sweets, fats, oils, new rice and hot water. If we observe the celebration of the festival, we come to know that all these were observed. It was a compulsory practice at every home to prepare a sweet milky dish with new rice which was called as *pongali* and a sweet known as *ariselu* prepared with rice flour, jaggery and ghee. Taking oil bath with *nalugu* was compulsory to both men and women on the first day (Bhōgi) of the festival.

It seems that there was a fear among the people about the evil influence of the viral and the bacterial infections of which they believed as the malignant influence of the *grahas*. That's why, they took many preventive steps through out the month. The preventive steps taken are :Putting fire burning early in the morning, sprinkling cow-dung mixed water around the house pouring lime in the artistic form of putting *muggulu* around the house, putting small balls of cow-dung decorating with flowers, turmeric and saffron here and there on the *muggu*, taking bath with the water in which were mixed the leaves of the beans-plant which works excellently on the minor skin problems: The sap of the bean-leaves removes the black-spots which appear on the cheeks and nose during this season. Likewise people believe that it brings back the normal glory to the skin after the cold season during when the skin becomes dry and loses its lustre.

A compulsory practice during every religious festival or any ritual to take up hygienic steps in the form of purification. Among such purificatory steps, the smearing of floor with cow-dung was the most important one. Its importance was realised by the foreign travellers also. Peidro della Valle observed that habit and gave a graphic descrip-

1 Abbe J.A. Dubois, *People of India and of their Institutions, Religious and civil*, pp.284-85.

tion of it. He says, "I took it for a superstitious Rite of Religion Indeed this is a pretty curiosity and I intend to cause tryal to be made of it in Italy, and the rather because they say for certain that the House whose pavements are thus stercorated, are good against the Plague, which is no despicable advantage. And in brief, 'tis certain that it is no superstitious custom, but only for neatness and ornament."¹

Another religious custom having importance is the observation of fasts on certain days. In Ayurveda, fasting is advised as a therapeutic measure. As the *rtucarya* stresses on light food during *grisma*, *pravrit*, and *varsa* seasons for the South Indians, certain days were chosen to observe fasts during these seasons. For example, in Andhradesa, the *Śrāvaṇa* (Aug 15-Sept 15) and *Kārtika* (Nov 15 - Dec 15) months were chosen to observe frequent fasts when purgatives were prohibited.² Peitro della Valle described the celebrations on every Monday, New and Full Moon days during the *Kārtika* month in Karnataka area.³ It was a common practice in Andhra region also. Even today, we find the celebration in practice. People used to observe fast during the day and dine in the evening after seeing the Moon.

Thus we can find how almost all the instructions of the medical scholars with regard to the maintenance of the good health, crept into the common practices of the common people in various seasonal religious celebrations and festivals.

The threshold of every house was deified and was worshipped every day or atleast on Tuesdays and Fridays. They were washed cleanly, smeared with turmeric paste and decorated with saffron here and there and flowers at the corners. The top portion of the door-way was decorated with wreaths of mango leaves on the festive and auspicious occasions and with the neem and saued basil leaves on the special occasions especially, when the lady of the house was on the child-bed and when an epidemic spread in the village. Still, the threshold is regarded as an embodiment of Goddess Laxmi and people believe

1 Peitro della valle, *Travels*, II, pp.230-31.

2 Kutumbaiah, p., *Ancient Indian Medicine*, p.133.

3 Peitro della valle, *Travels*, II, pp.283-84.

that one should not touch it with foot. The frontyard leading to the threshold also was smeared with cow-dung. It indicates the fact that the custom of keeping the environment of the house hygienic and preventive of the entry of the infections into the house must have been incorporated by the intellectual class.

Even some articles used in kitchen such as *ceta* (winnowing basket) and *kattipīṭa* (the knife-plank used for slicing the vegetables) were regarded as the embodiments of the goddess Laxmi. They should be kept clean free of dust or rust and should be kept in a proper place and in a proper position. The winnowing basket should not be kept in a closing position to the wall. We cannot ridicule such things as mere superstitious practices. If we keep the winnowing basket in the forbidden direction, germs and insects gather as they found there an encouraging and suitable dark atmosphere with a smell of the food-substance previously it contained. Hence such articles of kitchen were deified and certain principles of conduct were laid down to make the people follow the precautionary hygienic measures out of the fear of goddess. The short stool on which one used to sit upon while taking meals (*pīṭa*) also was forbidden to be kept as its legs facing the wall for the above mentioned reason. Germs make the legs of the stool their residence and grow there. That's why, it is said that the *sanigraha* saturn will settle on it, if it is kept in the forbidden direction. These beliefs and customs are conveyed from generation to generation as rules of conduct.

GYNAECOLOGY

Prasūtivaidya or gynaecology is included in *Swasthavṛtta* as it explains only the *Sādhārāṇacaryā* or a general thing and not related with any ill-health. The medical texts of medieval Andhradesa did not contain a separate chapter on obstetrics and gynaecology. It seems that they felt it was the subject of the midwives. There were expert midwives who could even take up the surgical operations during the delivery. It seems that it was because of this reason, the scholar-physicians did not give analytical explanation of this subject. Whenever some scholars like Basavarāju happened to give some guidelines with

regard to puerperium or paediatrics,¹ they followed the works of the *Vṛddhatraya*, adding some of the local practices. It must be because of the social custom of the times, women did not readily accept the help of the male physicians or surgeons. In the hospitals located in *mathas*, midwives were employed to handle the obstetrics. They might have been well-trained in the anatomy, obstetrics, gynaecology and paediatrics by the eminent physicians who were employed in those hospitals. The author of *Yōgaratnākara*, a Sanskrit medical work of the seventeenth century hints that there were some women (midwives) who were proficient in the surgical operations.² But it must be an oral education followed by practical training. During this period, there were many works written by scholars and notebooks written by the country-physicians or laymen containing the treatment for the diseases of newly delivered women and the children. But we do not find any work or notes on gynaecology available in the oriental libraries. This fact also supports the above view that the art of midwifery was learnt by the oral coaching and practical training.

EMBRYOLOGY AND FOETAL DEVELOPMENT

With regard to embryology and foetal development, the physicians of medieval Andhradesa agreed with the ancient scholars in many places and in some places they expressed some new things also of which they have found and understood in their practice. Vēmana agreed the opinion of Caraka and Susruta with regard to the part played by the male and the female in the formation of the embryo. He mentions that the formation of embryo is that both the male and female contributed seed.³ The secretion of the male is called the '*sukra*' (semen) which is derived from the food by way of the blood. The secretion of women is called '*sōṇita*' and is derived from the food by

1 *Basavarajiyamu*, pp.632 to 652.

2 *Yogaramakara*, Introduction, p.vi.

3 *V.P.* 2687.

way of blood. When the union between a man with effective *śukla* and a woman whose generative organ and '*śōṇita*' have no defects, and if at the time of the union, the soul comes in touch with it through the mind, the embryo is formed.¹ The Indian philosophers as well as the medical scholars expressed the opinion that the presence or absence of the sense organs is dependent on the acts of his previous birth and the child born of idiots or parents with defective senses need not necessarily resemble his progenitors². In the royal families, the *purohīts* or astrologers used to decide the time to when the king should meet his queen to get a son who would become a great king. There was a common belief among the people that if coition took place during the day or in the evening, the couple would get a defective child.

Vēmana mentions that a person is born between *mala* and *mūtra*, but he (the human being) despises both of them and he cannot stop their excretion also. He gives a hint with regard to the place of uterus. He says that the uterus wherein the foetus grows, is between the rectum and urinary bladder.³ Susruta also expresses in the same way thus: "The uterus is termed the *garbhāśaya*. It is adjacent to the urinary bladder and is located in the space bounded by the small intestines. The foetus lies in this during the period of gestation."⁴

In one of the verses of Vēmana, we find the description of embryological development of foetus. He explains thus: "In about five days after the fertilisation, the fertilised ovum will be like a mixture of curd and phlegm. Between 10 to 15 days, it solidifies. By the end of one month, the head is formed; by the second month the four extremities; by the third month the trunks; by the forth, the lumbar region and the sides of the body; by the fifth, other organs; by the six month, life enters into the body. By the end of the eighth

1 C S. IV, 3.2.

2 C S IV 3.30

3 VP.3742.

4 SS, III, 5.48.

month jnana develops; by the ninth month, the *dhyāna* or concentration and by the tenth month, the foetus is completely developed.”¹

Ofcourse, this description of the developmental stages do not coincide with those mentioned in Ayurveda. Srinatha Pandita, the author of *Parahitasamhita*, explained the foetal development mentioned the foetal development mentioned in *Susrutasamhita*.² Not only Srinatha but also many other scholars of Andhradesa agreed the description of Susruta. Although the foetal development and its stages explained by Vēmana did not coincide with those mentioned in Ayurveda, he revealed some important things with regard to this. It can also be noted that Vēmana indicates certain psychological functions developing in the foetus.

THE SYMPTOMS OF PREGNANCY

The descriptions of the physiological changes in pregnancy is a general topic in both the Sanskrit and Telugu *Kavya* literature. In *Simhāsana Dwātrimśika*, the author describes the symptoms of pregnancy thus: “The lady missed the usual menstrual flow for one month and her cheeks became thin, her face looked tired, blackness in the nipples appeared, waistline and shoulders expanded, and a new charm appeared in her. Afterwards, her abdomen became bright, nausea appeared, she felt heaviness and could not talk as previously, her walking became slow, she liked the sour things in special and her breast developed itself with very black nipples.”³ Mallinatha Suri who wrote a commentary to *Raghuvamśa* supported the changes described in Sanskrit work which are said to be found in *Sudakṣiṇa* by quoting the following verses from *Aṣṭāṅgahṛdaya*: “Leanness (feeling of) heaviness of the abdominal region, fainting, vomitings, anorexia, yawnings, excessive salivation, weakness and the appearance of the

1 V.P.2290.

2 V.Sankara Sastri, “Parahitasamhita”, *Sridhanwantari* Nov.1951, p.1764; SS, III-3.

3 *Simhasana Dwātrimśika*, I-34,35.

rōmarāji (line of hair on the abdomen above the naval) are the characteristics of pregnancy”.¹ In *Basavapurāṇamu* also we find the signs of pregnancy described very vividly from the first month to the completion of the ninth month.² Thus people developed their knowledge with regard to this subject by observation and previous experience.

CARE OF THE PREGNANT WOMEN

Much importance is given to fulfill the longings of pregnant women. Caraka lays down that whatever a pregnant woman desires should be fulfilled except those which are very harmful for pregnancy. Vagbhata gives more importance by stating that even unwholesome substances, when the pregnant women desires, should be given out with specific antidotes and in small quantities.³ The medical scholars of medieval Andhradesa did not deal with these matters. They might have ignored these while writing their works since the common people had good knowledge about pregnancy and its allied matters. The common people believed that if the longings of the pregnant woman were not fulfilled she would deliver a handicapped child; some others believed that her legs, hands and face would get swelling.⁴ Koravi Goparaju says in this context thus; “They (The friends of a pregnant woman) provided her every thing she wanted, so as the baby who is going to be born should be born without any defect or disease”.⁵

In *Bālagrahacikitsa*, a work on paediatrics gives a list of general disorders which appear in the pregnant women and their treatment. In the first month, the pregnant woman who was suffering with pain in the stomach was give *padmakam* and *vattivēllu* after grinding with necessary quantity of water and mixed with milk to get relief. If it was

1 *Bulletin*, IIHM, Vol.IX (1-4), pp.13-20.

2 *Basavapurāṇam*, p.12-13.

3 *Astangahrdaya*, Sarirasthana, 1-53.

4 Dr.P.Narasimhareddi, *Telugu Sametālu-Janajivanamu*, p.254.

5 *Simhasana Dwatimsika*, 1-30, 31 & 32.

in second month, the root of *pallēru* (*pedalium murex*), the root of *Nēlatangēdu* (the Ground Cassia) and the sea-salt ground into juice should be given. If the trouble was in the third month *takkōlam* (the skin of a tree known as *Clarodendrum inerme*) and the lotus flower (which blossoms in the day) in equal quantity were ground with water and were given with milk. In the fourth month, the roots of *pallēru* and *Cengalva*, *takkōlam* (*clarendendrum inerma*) and *candanam* (sandalwood) in equal proportions were ground and given to the suffering woman. In the fifth month, the above mentioned doses of drugs prescribed for the first four months were to be taken separately in sequence to cure the colic (*garbhaśūla*). In the sixth month, the colic should be treated with the drug prepared by grinding the long pepper, *uccintapallu* (the fruits of the gigantic swallow wort), the roots of lotus and *nāgakēsaralu* added with milk. In the seventh month, the root of *Velaga* (the woodapple or *Feronia elephantum*), *Carum Copticum*, sweetflag (*Acorus calamus*), lump-sugar and rice ground with water in equal proportions was suggested to be given. In eighth month, long pepper and the citron fruit (*māḍīphala*) in equal quantities after grinding with water were suggested to be given with milk. Next it is said, that the child will be born in the ninth month.

All the above mentioned prescriptions are very simple to secure. In those days all these drug-substances were available every where even in the village shops and the weekly *santes* and everyone was familiar with these drug-substances. From the writings of indigenous and foreign travellers and from the information coming from the inscriptions, we can observe that most of the drug-substances were cultivated in abundance as there was much demand in the commercial ground also.

THE SIGNS WHICH POINT TO WHETHER THE FOETUS IS MALE OR FEMALE

“During pregnancy, the sex of the foetus is first differentiated in the

second month”¹ Caraka and Susruta laid down in their Samhitas that “the desire for the company of females, bulging of the foetus on the right side of the abdomen manly temper and actions indicate a male child; the reverse a female child; mixture of both indicated a hermaphrodite”.² Basavarāju did not mention this thing. Perhaps he might have considered it a superstitious or unscientific notion. In *Simhāsanadwātrīṃśika*, we find an example with regard to this. There the pregnant woman says that the foetus is moving in the left side. Then the poet says that the maidens who are appointed to look after her lie that she will get a male child just to please her.³ But at the end, she delivers a male child making the lie of the maidens a truth. If the medical tradition with regard to this is correct, she must have delivered a female child as she felt the foetus moving in the left side of the abdomen.

Basavarāju refers to the mechanism of sex-determination which, according to Indian anatomists, takes place at the time of fertilisation. He says, “Due to the predominance of blood in (the embryo of) women results in the birth of a female child, predominance of śukla (semen) results in the birth of a male child and the equilibrium of both śukla and sōṇitha results in the birth of a hermaphrodite”. If the semen of the man is weak, the foetus cannot develop and it leads to abortion and hence the necessary drugs were advised to be taken by such a person to develop his ‘śukla’ (semen).⁴

Vēmana ridicules the people, perhaps keeping in view their anxiety to know the sex of the foetus, thus: “United with every living creature, manifest is the deity within them. Consider this deity carefully, whether it is female or male”.⁵ Here Vēmana tries to remind the people of the Arthanārīśwara who is an embodiment of Śiva on the right half and Pārvati on the left half and tries to convince them to

1 C S, IV, 2.

2 C S, IV.2.23 & 24; S S, III. 3.20

3 *Simhāsanadwātrīṃśika*, I-35.

4 *Basavarajiyamu*, XV, p.635.

5 V V 1054.

receive the child either male or female as the representation of the deity. As mentioned earlier, people craved to get more children. With regard to this, he says that only one is enough if he is made efficient and good.¹

SIGNS OF LABOUR AND DELIVERY

In *Sinhāsanadwātrimsika*, the author gives a graphic description of the changes in the woman, who completed the ninth month. He further explains the signs of labour thus: "Her back and seat becomes flat, abdomen looked like a box made of gold, navel fully blossomed, waist pain started and then the nurses made their efforts for the easy delivery. The lady then delivered a male-child giving pleasure to all her well-wishers".² Susruta also explains these signs thus: "There is a looseness of the sides of the abdomen and an untying of the umbilical cord of the child (from the cardiac cord of its mother); characteristic waist pain is felt. This pain is constant and severe both in the waist and in the back; constant bowel-motions (diarrhoea, tenesmus), frequent micturition and mucous discharge from the vulva occur. Signs of labour are the typical pains and discharge of amniotic fluid after the ruptures of the membranes".³ Generally, the common women-folk well knew the signs of the commencement of the labour. The starting of the discharge of the mucous from the vulva was recognised as the sign of imminent labour. Then after sometime, the woman starts crying unable to bear the pains.⁴

1 వందిపిల్లల బెట్టు వదియునెన్నిదిన్నెన

నగ కుంజరంబు పెట్టు కొదమ నొకటి

ఉత్తమ పురుషుండు ఒక్కండు చాలడా. ||విశ్వా||

Vemana Padyalu, Parisprati, V.146.

2 Simhasanadwātrimsika, I-37 to 40.

3 S S, III, 10-4 & 5.

4 Amukta, IV-79.

When the women in the house observed that the time for delivery was commencing sooner, they called for midwives and started 'preparing everything ready so as not to face any difficulty during or immediately after delivery. They used to get ready a drug known as "Kāyam" made with dry-ginger, long pepper, the Carum Capticum, etc. for the mother to give immediately after delivery and hot water for the child for bathing. They used to dig a pit beforehand so as the water after the bath of the child should flow into it.¹

In *Sivarātrīmāhātmyam*, the author gives a graphic description of the things done after delivery.² He describes the things done for the protection of the mother and the infant such as tying the 'rakṣārēkha', making offerings to the deities, taking steps to prevent the evil-eye, etc. He also describes the things present in the *prasūtiḡṛha* such as a good cot, fire, salt, neem-leaves, sandal; paste, oil, and the medicine known as *Kāyam*, etc. Many women are said to have gathered in the room which is mentioned as 'arīṣṭālaya' to prepare and keep ready everything needed at the time of delivery. A woman worshipped Jyesthadevi wearing turmeric clothes, another lady drew figures of the Sun and the Moon, another poured ghee; lastly it is mentioned that a lady burnt the snake's molt -; the fumigation by burning the snake's molt is prescribed in the works of Caraka and Susruta for expulsion of placenta if there is any delay.³

Generally an easy delivery was expected. But as Vemana says, if the foetus is in a transverse position, it leads to difficulties during delivery.⁴ In such cases, surgery was needed. From the information given in *Yōgaratnākaram*, a seventeenth century work, we come to know that not only the doctors, but also the midwives were experts in taking out the baby by surgical methods. The word "Śāstraśāstrārthaviduṣī" is used which means that she who is "an expert in surgery".⁵ In case the foetus was dead, it was advised to be drawn out with hands

1 *Srikalahastimahatmyamu*, III-26.

2 *Sivaratrimahatmyamu*, II-67 to 76.

3 *Bulletin, IHM*, VI(2), p.96.

4 V P. 2478.

5 *Yogaratnakaram*, Introduction, ix.

smearing pure ghee and with surgical instruments, cutting it into pieces with great care. If the foetus was alive, it was advised strictly that it should not be drawn out cutting into pieces. It was regarded as very much dangerous for the mother also.¹ *Siṃhāsanadwātrimśika* describes a successful incident of taking out the child safely by surgical operation.² But these practices might be common only in the royal harems and in the houses of the rich.

The women in lower classes, who “deale with tilling the Land, Fishing and such like labours” along with their husbands, generally managed their delivery themselves, sometimes all alone without any difficulty. One such incident was witnessed by Linschoten who described it in his travel account. He describes thus: “When the women are readie to travell with Child, they are commonly delivered when they are all alone: and their Husbands in the fields, as it fortuneth upon a time, as I and some other of my friends went to walke in the fields, and into the Village where the Canariins dwell, and having thirst, I went to one of the Canariins houses to aske some water, there with to refresh us, and because I was thirstie, I stooped down and thrust my head in at the doore, asking for some water, where I espied a Woman alone within the house, tying her cloth fast about her middle, and before her having a Wooden Trough (by the Portugals called Gamello) full of water, where shee stood and washed a child, where of as then she had newly beene delivered with out any helpe: which having washt, she laid it Naked on the ground upon a great Indian Figgie leafe, and desired me to stay and she would presently give me water. When I understood by her that she has as then newly beene delivered of that Child without any helpe, I had no desire to drinke of her water, and perceived the same women, not long after going about her house, as if there had beene no such matter, and the Children are brought up in that manner cleane, naked, nothing done unto then, but onely washed and made cleane in a little cold water, and doe in that sort proper and come up as well as man would wish,

1 *Basavarajiyamu*, XV, pp. 676-77.

2 *Siṃhasanadwātrimśika*, I-166.

or as any Child within these Countries can doe with all the tending they have, and live many times until they be a hundredth yeeres old without any head-ache, or losing any of their teeth.”¹ But they too might have used the simple herbal drugs prepared at home and which needed no expenditure. Usually the drug substances were available free of cost in their surroundings either in the backyard of their home, or at the fields or forests or in the outskirts of villages. Tavernier mentions that he has seen women collecting the drug substances in a particular season for their family use throughout the year.²

John Fryer writes his opinion after his observation in Goa, Vijayanagar and the other Deccan Kingdoms thus: “Midwifery is in esteem among the Rich and Lazy only; the poorer, while they are labouring or planting, go aside as if to do their Needs, deliver themselves, wash the child and lay it in a cout or Hammock and return to work again”.³

As the women in the *janapadas* were used to do hard work, an easy delivery was a common thing. But if the foetus was in a transverse position, or when the foetus was dead inside, it was definitely a critical condition. Though there were some physicians and midwives who were experts in taking up the surgical operations as already mentioned, we cannot state without proper evidence that those facilities prevailed everywhere. No doubt the *mathas*, especially, served the people by establishing *prasutigrhas*. But they were in limited centres, not in every village. Hence there might be some deaths due to difficult delivery.

MANAGEMENT OF PUERPERIUM

This period extends to one and a half months after the delivery. The woman, during this period, expected of follw strict regimen. Immediately after delivery, she was given a drug known as “*Kāyam*”,

1 Linschoten, Purchas, *Pilgrims*, X, p. 263.

2 John Phillips Esquire (Tr), *Tavernier's Travels in India* (Eng. ed.) p. 231.

3 *Bulletin, DHM*, Vol. II(4), 1964, p. 249.

prepared by the women at home. The body of the women was to be anointed with a medicinal oil¹ and smeared with a paste prepared by grinding the turmeric and the root of *puiṭapodaru*.² If any *dosa* still remained in her body. These medicines were continued for three days until the spoilt blood was removed.. Afterwards, she was advised to take the gruel of *varigelu* (a kind of grain cultivated in this region). A medical note book of medieval Andhradesa says that it improves the breast-milk.³ Usually, the woman in child-bed wore herbal beads made of *vasa* (*acoruscalamus*) to prevent the excitement of the *vata* and used to chew betel⁴ to improve the digestive power and to strengthen the gums which naturally become sponzy after delivery. She was to apply oil daily on the head and salve to the eyes.⁵ Then according to her digestive power and health condition, a nutritious food was given. But until she stopped suckling her child, she was advised to be careful as her dietetic habits would effect her child. Until her child started getting teeth, the woman did not generally participate in coition.⁶ In case she again became pregnant, she was advised to stop suckling her first child.⁷

KAUMĀRABHṚTYA (PAEDIATRICS)

There is a branch in the indigenous science of medicine known as *Kaumārabhṛtya* which deals with (1) nursing and healthy up-bringing of infants and children; (2) purification and improvement of breast-milk found deficient in quality and quantity; and (3) treatment of diseases peculiar to infant life and of diseases due to malignant stars.

1 *Pandurangamahatmyamu*, IV-21.

2 *A Des. Cat. Tel. Mss.* GOML, ZNo.2413, pp.2689-90.

3 *Ibid.*

4 *Sri Kalahastimahatmyamu*, IV-10.

5 *Ibid.*

6 *Amukta*, V-116.

7 V.S.Sastri, "parahitasamhita", *Sridhanvantari*, Oct.1951, pp.765-66.

THE CARE OF THE NEW-BORN CHILD

The medical texts lay down that immediately after its birth, "the shreds of membrane lying on the body of the child should be removed and its mouth should be cleaned with clarified butter. Then the child should be washed in either cold or warm water according to the season. Then its palate, lips, throat and tongue should be gently wiped with the fore-finger covered with well-washed cotton. Having thus wiped the mouth, the child's head should be covered with a pad of cotton soaked on oil. After this, the child should be made to vomit by means of a little ghee mixed with *saindhavalavaṇa*. Then the umbilical cord should be cut between two knots with a sharp knife with the edge turned upwards, leaving a space of 8 fingers from the root of the navel. Then a string should be tied at any point round the uncut portion of the cord and it should then be loosely attached to the neck of the child..... The child should be treated with ointments that are mild and appeasing of *vāta* and *pitta*, with smearing or sprinklings and with butter".¹ The literary works of the contemporary period contain the descriptions conveying approximately the same methods of nursing the infant. *Simhāsanadwātriṃśika*, and *Sivarātriṃśatmyamu* give the description of the methods followed in the Telangana and Coastal regions respectively of Andhradesa. *Simhāsanadwātriṃśika* describes the cutting of cord, smearing the body with castor oil, putting ghee on the skull of the child, sprinkling of 'Kalinīru' (the water which is used for cleaning the rice) on the child and giving bath to the child with warm water.²

Usually the umbilical cord was cut with a clean sickle which they used to reap the corn.³ There was a practice to put a gold coin on the cord before cutting it. It is an usual practice still now to put the child in the winnowing basket known as *ceta* and put gold on the navel on

1 P.Kutumbaiah, *Ancient Indian Medicine*, pp.194-195.

2 *Simhāsanadwātriṃśika*, III-42 & 43.

3 *Amukta*, V-112.

the day of bathing celebration of the mother, usually on the 9th, 11th or 15th day after the delivery.

After giving bath to the new born child immediately after delivery, the elderly women used to give castor oil, to the child to swallow. It is described by *Dhūrjaṭi*, the author of *Śrīkālāhastīmāhātmyamu* that the castor-oil given to the infant to swallow is just like giving it the nectar.¹ The body of the child was wiped with clean white cloth and the mud which was sticken to the forefinger of the lady who got the infant bathed was put on the forehead of the child. The two eyes were decorated with eye-salve. It is advised that this eye-salve should be prepared with lac, *vāvili* (cleome penta phylla) *gunṭagalagara* (*Eclipta cerbecina prostrata*) and safflower (*Carthamus tinctorious*). After getting soaked some cotton in the juice of these substances for seven times and litting it to fire, the lampblack is to be taken as eye-salve and be applied to the eyes of the child, so that the eye diseases like 'pilla' will be cured.²

Parahitasārṇhita lays down that if the *gudadwāra* or the *lingadwāra*, eyes, ears, nose, etc. are not open when the child is born, the physician should make the holes by surgical methods.³

THE PRASUTIGRHA

We find the descriptions of the *prasūtigrha* in many literary works of the period. A separate room was allotted as a labour room or *prasūtigrha* in almost all the houses of the rich and the middle classes. It was usually kept clean and was aloof not having any common entrance into the main house through this room. But it should not be an outside one away from the main house. The medical scriptures laydown that the "child should always be kept in an inner apartment of the house; it should not be kept in an unclean and unholy place, under the sky, or on uneven ground, nor should it be exposed to heat,

1 *Srikalahastimahatmyamu*, III-27.

2 *Sridhanwantari*, Nov. 1951, p.766.

3 *Ibid*.

storm, rain, dust and smoke; it should be guarded from exposure to sun and to the flash of lighting; it should not be placed under a tree or a creeper, on low-lying land, in a lonely house or in the shadow of one"¹ The contemporary literary works of the period reveal the fact that these guidelines of the ancient scriptures were followed by the people in the households. They believed that a room which was guarded from exposure to sun and to the flash of lighting was desirable,² and it should be endowed with ever-burning fire. The experienced and elderly women used to gather, to give guidelines and to see that no disturbing noises of other children be prevailed and to see that whether all the steps to prevent the evil spirits and evil-eye were being taken or not.³

The bed of the child was arranged as light, soft,⁴ clean and straight.⁵ The articles such as asafoetida, carum copticum, acorus calamus, neem-leaves, the husk of the paddy, coal, mustard-seeds, castor-oil, a drug known as 'Kāyam' etc. were kept ready in the *prasūtigṛha*. The sticks known as musidikolalu were arranged in all the corners of the cot perhaps as the holders of a net to keep away the influence of demons and evil-spirits. Castor-oil was constantly put on the head of the child. Some preventive steps were taken not to allow the evil spirits to enter into the room. A fire was kept constantly burning in the room. In *Simhāsanadwātrimsika*, the things thrown into the fire to prevent the entry of evil spirits were mentioned as the cotton-seeds, fallen-hair and the husk of the paddy.⁶ *Mahēndravijayamu* and *Vāsavadattapariṇayamu* mention that the husk of the paddy, outer skin of the onions and the seeds of mustard are thrown into the fire which is kept outside the room and near its thresh-hold.⁷

1 Dr.P.Kutumbaiah, *Ancient Indian Medicine*, p.195.

2 *Jaiminibharatamu*, VI-84.

3 *Sriksnarayandhra Vijnanasarvaswam*, p.387.

4 *Simhasanadwātrimsika*, I-43.

5 *Sriksnarayandhra Vijnanasarvaswamu*, p.388.

6 *Simhasanadwātrimsika*, I-45.

7 *Sriksnarayandhra Vijnanasarvaswamu*, pp.387-88:

The green leaves of the sacred Basil along with *mābīra* (*Afugadistica*) leaves were hanged to the doors and the sculptures of the deities which were carved on both sides of the entrance wall were smeared with cow-dung. Asafoetida was put on the fire and its strong smell spread around. In such a *prasūtiḡṛha*, the people believed, no evil element or *graha* could enter.¹

All the leaves and substances used for various purposes in the *prasūtiḡṛha* can be found as herbal and which prevent the germs or other infections to enter into the room. They help to keep the surroundings hygienic without any filth or foulness. As mentioned earlier, all the customs followed in the *prasūtiḡṛha* which are mentioned above are particularly relevant to the rich and middle classes only where as the lower classes were sometimes forced to enter into the work immediately after delivery owing to their financial problems.²

FOOD OF THE INFANT

The natural food of the infants was mother's milk. The medical texts lay down that milk sets in the breast of a newly parturient woman only three or four days after parturition. But Vēmana mentions that ladies start suckling their children on the second day of the delivery.³ If the mother's milk could not be obtained, any other woman who had excessive milk in her breasts after suckling her own child, were advised to be taken as a substitute. If the human milk was not available, the milk of a healthy cow or she-goat was taken as a resort. The breast-feeding of mother was prohibited when she became pregnant again.⁴

Woman as a mother received great respect in the society. To be blessed with more children was a great thing then. The woman who

1 *Srikr̥ṣṇarāyaṇdhra Vijnanasarvaswamu*, pp. 387-88.

2 Linschoten, Purchas, *Pilgrims*, p.263; *Bulletin, IHM*, Vol.I(1&2), 1971, p.249.

3 *VV*:332.

4 V.S.Sastri, "Parahitasamhita", *Sridhanwanuari*, Oct.1951, pp.765-66.

had only one or two children was also regarded as a *Vandhya* (barren woman). There are four types of *vandhyas* described in the medical texts.¹ The woman who had no children received no respect in the society. Hence, the women who had no children used to perform religious and munificent acts to get children. They used to take the popular herbs intended for that purpose. In addition to it, women used to pray Gods and make vows to give offerings. In *Sivarātrimāhatmyam*, the efforts made by a woman who had no children are described.² We find an inscription registering the grants made to the gods for blessings to get children. We find some inscriptions which refers to a grant by Kondamarusayya so that Krishnadevaraya might be blessed with a male child.

Basavarāju mentions that the cause for the barrenness in woman is the imbalance of the *tridoṣas* i.e., *vāta*, *pitta* and *kapṛa*. And he prescribes the herbal medicines which can be had easily from the surroundings of the village or from the apothecary shops.³ Generally these prescriptions were well known by the women as these medical substances and the making of the medicines were easy to get and prepare and can be easily remembered.

Thus the contemporary sources prove the fact that the people gave much importance for the maintenance of good dietetic habits and other rules of good conduct. They tried to follow them in their daily life keeping in view the seasonal changes so as to keep up their good health and at the same time to avoid disease. The physicians propagated in the society the importance of taking nutritious food. People belonging to all classes of people used to take nutritious food within their capacity and in accordance with the availability of the food stuffs. The foreign travellers described that there were many fruit gardens of various kinds and the inscriptions inform that they believed the dedication of fruit gardens to the society as an act of merit. They observed the domestic as well as personal hygienic rules.

1 *Basavarājiyam*, XV, p.632.

2 *Sivarātrimāhatmyam*, II-40.

3 *Basavarājiyam*, XV, pp.633-35.

The cleanliness maintained by the hut-dwellers in their surroundings, their way of drinking water, the neatness around the butcheries, etc. were very much appreciated by the foreign travellers.

The women-folk were very much interested in *prasutivaidya*. They learnt the art of managing delivery cases and the art of healing the diseases or troubles which might appear before or after delivery from their elder's. That's why sometimes practices with regard to gynaecology and paediatrics seem to be primitive. But we cannot state that all their practices were such. Sometimes they exhibited much talent in managing deliveries and bringing up children, protecting them with their art of healing with simple drugs. They maintained cleanliness of the surroundings. Usually the midwives used to wear a dress which was dipped in turmeric water. The herbs they used to decorate the threshold of the labour room and to put in the fire were all anti-bacterial and anti-viral.

CHAPTER VII

Conclusion

During the ancient period, India was famous for its scientific and cultural developments. After the Muslim conquest of India, the scholars were very much scared of the security of their valuable works and many such works were turned into ashes by the furious and fanatic activities of the Muslim soldiers. Fearing suppression, many scholars from the North came to the South with their profound knowledge and many valuable works of their posterity. These scholars were received and patronised by the kings, feudal lords, temples and mathas in Andhradesa. By this time, the scholars of this region like Bāhaṭācārya, Dāmōdara Bhatta, Viṣṇubhaṭṭa, śārjñadhara, etc. started a progressive movement in the field of medicine. The situation prevailed here and its cultural background attracted the attention of the scholars. The Reddi and the Vijayanagara kings had already started the bulwark against the Muslim onslaughts and stood as the custodians of Hindu Dharma and culture. They patronised many scholars and encouraged them to compose works on the sciences like Ayurveda. Ayurveda attraction of all the scholars and the kings as an important branch of study.

The Ayurvedic scholars of Andhradesa accepted the principles laid down by the ancient *triad*. With regard to the diagnostic and the therapeutic methods, *materia medica*, pharmaceutical methods, etc., they took up research and invented many new things. Previously diagnosis was made on the basis of the five particulars relating to the inducing causes (*nidāna*), premonitory indications (*pūrvarūpa*), symptoms (*rūpa*), applicability of medicine, diet, course of conduct (*upasāya*), and the beginning of the disease (*samprāpti*). Around A.D. 1300, the method of *aṣṭasthāna parikṣa* in diagnosis was introduced

by the Andhra scholars. It marked a mile stone in the history of indigenous medicine in India. With this achievement, revolutionary changes started taking place in the development of the science. Unfortunately, the medical works did not reveal proper and sufficient information of these scientists, since the authors did not give much information about their personal life. They were interested in the development of the science and least bothered about their fame. Their longing for the human welfare is very much appreciable but their reluctance to fame became an obstacle in our attempts to reconstruct the history of medicine. As a result of it, the information regarding a great revolutionary movement in medical research remained in darkness. After a great effort, the historicity of about 55 scholar-physicians and their chronology are brought into light. It helps us in achieving clarity in the stages of development of this science.

The study of the method of teaching Ayurveda, the qualifications required for the pupils and preceptors, the relationship between the student and the teacher maintained, the ethics followed in the profession, the status of a physician in the society, etc., helped the clear understanding of the factors contributed for the development of the science. The instruction in this science was not limited to the higher caste people only. The Saivites and the Vaisnavites vied with each other to educate the masses irrespective of their caste or creed. The free services made by the *parahitas* in the therapeutic as well as educational fields in the medical and veterinary sciences came into light. The chronology of about 20 members off these *parahitas* is established. Their knowledge in many sciences and their peity and simplicity indicate the importance given to the ethics in the profession by the physicians of the day. The status and importance of the physician in the society can be understood when we come to know that the people believed that one should not reside in a village where there was no physician. They believed that the physician was the incarnation of God on earth¹

1 *VaidyoNarayano Harih.*

The root of the indigenous medicine can be observed for the first time in the healing-art of the primitive man. Gradually, the leaves, the fruits, the roots, the bark, the stem, etc., and the animal and the mineral substances came under the keen observation of the medical men and were added to the *materia medica*. Many works and lexicons were written on this subject during the medieval period. A significant thing to be noted here is that many such works were written by the Andhra scholars. The *materia medica* of India had great renown in the foreign countries also. Especially, Andhradesa was famous an abode of rich flora and fauna. The drug substances collected from the Indra-Kiladri, Srisailam, Nuzividu, Kondapalli, Kondavidu, Tirupathi, etc., were exported to foreign countries such as China, Russia, Brazil, Ceylon, Holland, etc., by the Andhra and the Portuguese merchants. If we observe the things included in exports and imports, we find that majority of them were spices and drug-substances. As a result of this flourishing trade, the indigenous medicinal goods were introduced in the foreign countries and some drug-substance from other countries were added to the indigenous *materia medica*. The fruits and other substance brought from the other countries were added to the dishes of the people. The physicians of Andhradesa keenly observed and found out their *rasa*, *vīrya*, *guṇa*, *vipāka* and *prabhāva* of those substances and explained them in their medical works.

The indigenous drugs were significant in the geographical and economic point of view. They were found available very easily and at very cheap cost to the physicians as well as the common people. Generally, the physicians collected them from the temple-gardens or the backyard of their homes or in the surroundings of their village. The housewife found most of the substances in the grocery box of her kitchen or in the backyard-garden of the house or in the grocery shops of the village. That's why people did not suffer due to lack of purchasing capacity or due to the scarcity of the things. The Andhra medical scholars tried their best to propagate the knowledge about the *materia medica* among the common people through nursery rhymes and folk-songs. They translated many medical lexicons from Sanskrit into Telugu and propagated them with their names in usage. The kings and the feudal lords also encouraged the merchants who were

engaged in foreign and local trade by levying liberal taxes on the medicinal goods. They maintained gardens in the towns and villages and appointed *Vanapalas* for their supervision. Garden lands were donated to the temples for the cultivation of the herbs. It facilitated the maintenance of the profession and the preparation of drugs.

Not only the herbal drugs but also the mineral and *rasa* medicines were in great demand in those days. The physicians of Andhradesa were proficient in preparing them. They invented many mineral and *rasa* medicines and brought them into popular usage. Especially, the *rasa* system of medicine indirectly helped the development of technology for preparing colours, steels, glassware, spirits, etc. In the preparation of the drugs, they used the *rasa* (mercury), *visa* (poison), *gandhaka* (sulphur), and *pasanas* (poisonous stones). The instruments and utensils needed in the preparation of drugs were locally made. The temples and the mathas maintained artisans, potters, bamboo workers, etc., to make such things. The kings and the rich people made grants to the temples to meet the expenditure. The preparation of *rasa* drugs became an art during this period. The invention of a new method i.e., the calcination of mercury added credit to the Andhra scholars. The invention of a new drug such as *Purnacandrodaya* and *Makaradhwaja* was the result of the research made by the Andhra scholars. They prepared the *arags* borrowing the pharmacological method from the Unani system and administered them in their practice. Though they took the pharmaceutiological method from the Unani system, they made use of the same compounds of the indigenous drugs as prescribed by the previous scholars. The pharmaceutical methods of the indigenous physicians were appreciated by the foreigners also. Linschoten mentioned that the physicians here were experts and more skillful than the Europeans in using the China-root which was brought and newly introduced by the Portuguese. Tavernier, the French traveller gave an eye-witness account of the healing-art of the common people, the art of making wonderful medicines by the physicians, etc., in his work. As they were not so superstitious to believe that the things mentioned in the science were the only truths and the other things taken from the previous practical experience as unscientific; the subject mentioned in the indigenous science was the only truth and the acceptance and

adoption of the things from the other systems as nothing but polluting the indigenous system; they achieved a great development in the science. Accepting the traditional scientific truths on the one hand, they received many good things from the other systems such as the Unani and contributed for the development of the indigenous science of pharmacy.

In every branch of Ayurveda, we find development in therapeutics. Indrakanthi Vallabhacharya explained many new diseases. Basavaraju and Bhavamisra first explained the new diseases occurred on account of the contact with the Europeans. These two scholars identified and categorised many other diseases with minute differences from the already existed ones. In Ophthalmology, a significant development can be found both in diagnostic and therapeutic methods. Glasses were prescribed in case of eye-sight defects. Cataract operations were very much common. Dental surgery also was developed. Fixing caps on the broken teeth was another contribution of these physicians. The methods followed by the Andhra physicians in toxicology or *viṣavaidya* were much appreciated by the foreign travellers.

During this period, the emergence of Yoga as a therapeutic method and the development of *rasa* system of medicine with its wonderful cures made surgical operations not necessary in many cases. But surgery was not neglected. It continued as an important branch in the indigenous medicine during this period. Attending the wars and getting wounded was a common thing in those days. The physicians who were experts in the *śalya* and *sālakya tantras* accompanied the troops and treated them in the war camps. "Since olden days the Indian doctors were renowned for their surgical operations. In plastic surgery, they had achieved much perfection that the European surgery of the nineteenth century had to borrow some methods from them." Since the chopping of noses and cutting of ears continued to be the punishments in criminal Procedure code, the art of plastic surgery continued to be a flourishing branch during this period. Some *mathas* appointed surgeons in their hospitals. The Jain scholars also took up surgical operations to alleviate the patient from pain or disease. Even the nurses were well acquainted with the most difficult operations in case of abnormal delivery. After the first half of the seventeenth century, even surgery fell into decay. The unfortunate

atmosphere prevailed then, discouraged to take up complicated operations resulting in the gradual fall of complex surgical methods into decay. The simple operations in case on piles, cataract, etc., continued as family-arts in certain communities till today.

We can observe a definite development in the treatment of psychic diseases. The scholar-physicians of the period explained the scientific causes of the psychical diseases and the methods with which they were to be treated. The brutal methods of treatment such as whipping, frightening, burning with hot iron, exposing to the sun, etc., were not prescribed by the medieval Andhra physicians. But the traditional beliefs and practices did not seem to have completely extinguished from the society.

The foreign travellers who visited this region during this period noticed the skill of the physicians in the art of healing. They noticed the common diseases which occurred due to the extremities in the climatic conditions and others and described the methods of treatment undertaken by the physicians as well as the common people at home.

The physicians of medieval Andhradesa stressed much on the *swāsthavṛtta* to avoid disease and propagated the importance of the up-keep of health and personal hygiene. They wrote works on *dinacarya* and *rtucarya* and on dietetics. Almost all the medical works contained chapters on these topics. They explained the preparation of many tasty recipes conducive to good health and also of many cosmetics and other things for the upkeep of beauty and charm. Thus cookery and cosmeticology also prospered as allied subjects in medicine.

In case of epidemic diseases, we can observe the people worshipping village deities for averting their wrath. Though some of the methods followed in the worship such as animal sacrifices which were condemned by the scholars like Vemana, the other practices such as *dhupas* could be found as approved by the physicians. The physicians prescribed the drugs to alleviate these diseases. Though the people observed some traditional propitiatory rites, they definitely followed prescriptions of the physicians such as *dhupas*, decoctions, medicinal stones etc., and the dietetic regulations. The prevalence of the cult of worshipping deities among the common people indicate the immense

faith of the people in that cult. It reveals the fact that it was capable of giving psychological relief and courage to them to face the epidemics.

We can find an intimate relationship between religion and medicine during this period. From the ancient times, Ayurveda is regarded as a sacred subject which is originated from the mouth of God. It is an *upāṅga* to *Atharvaveda*. The later writers on medicine too tried their best to strengthen the ties of medicine with religion. Though the science of medicine entered from the magico-religious field to the empirico-rational line, the medical scholars did not stop giving the irrational causes for the occurrence of a disease as *Karmavipāka*. But it is sure that they did not rely on this in their profession though they propagated it in the society. They continued the mentioning the *Karmavipāka* in the medical texts only to safeguard the ethical values in the society. Their brains were bred in the tradition, by the tradition and for the tradition. They generally studied in the schools established by the religious institutions such as the temples and the mathas. They were guided by the traditional knowledge and they dedicated their lives naturally for the protection of the tradition. That's why, though they found many scientific truths during the course of their research, they first explained the traditional knowledge they gained and then tried to explain their new findings on scientific lines. Thus we find the new diagnostic methods in their works only after explaining the *Karmavipāka*. It seems that they felt it their responsibility to safeguard the *dharma* in the society. They tried to infuse fear against sin in the minds of the common people by propagating the *Karmavipāka*. In case of therapy also, they prescribed some propitiatory rites such as *dāna* (donation), *hōma* (religious rites), *japa* (meditation), *niyama* (rules of conduct), etc., to inculcate in the people charity, respect towards religion and righteousness.

Various religious sects such as Jains, Buddhists, Saivites and Vaisnavites vied with each other in extending medical aid to the common people. As a result of the competition among them, the science of medicine reached its zenith in its development. They took up these activities as a means to bring credit to their respective religious faith. As a result of it, almost all the religious men studied the science of medicine and all the religious institutions maintained hospitals. Ex-

pert physicians compounders, nurses and other workers got employment in the hospitals which were attached to these religious institutions. They did not satisfy with these activities. They established laboratories in the mathas and in the temple precincts and undertook research work to find out wonderful cures. They made use of these hospitals as the practical training centres to those students who were studying in the learning centres established in the respective religious institutions. These centres also maintained links with other holy places spread throughout India and exchanged the saints, scholars and physicians in a reciprocal manner. As a result of it, the new ideas and developments also spread among the medial scholars throughout the country. The findings of the scientific research of those days also can be found as being brought to the common man's benefit in the form of religious customs. The festivals which were celebrated as religious rites and greater relevance to the attempts of the people for the protection of their health. The selection of the days for the celebration, the customs followed during the celebrations and the articles of worship or dishes prepared, the fasts observed, the *sadachara* followed - all these seem to be the customs incorporated by the intellectual class. If we observe everything followed during the festivals very keenly, we cannot refute them as mere superstitions. But it is also natural if some superstitions crept into the custom of the people where medical practices were inseparably linked with religious customs. That's why, a reform movement was needed in the society.

The reform movement in the field of medicine that took place in this region is a significant feature during this period. If the history of this period is observed keeping in view the royal court and the cultural and scientific developments, it seems to be regarded as a golden period. At the same time, it seems to be an age of confusion and ignorance in the context of the common man's life in the villages. There were several causes for this contradiction. Especially, it was a period which witnessed a wide gulf between the intellectual high caste and the illiterate low caste people. Many irrational practices had developed in the field of medicine due to lack of proper understanding of the customs and traditions. It was at this time that some scholars and saints started remonstrance against evil practices in this field. Among them mention may be made of Vēmana. He travelled

throughout Andhradesa observing the social customs and traditions repudiating in sharp terms what he had considered not proper. He noticed that the common people were bluntly following some irrational methods and their knowledge gained out of their experience was full of misunderstandings and superstitious notions. He warned the people that this kind of trend in the field of medicine was very harmful and advocated that the diagnosis and the treatment should be done in a scientific way. He opposed the miraculous powers attributed to the mineral drugs and *rasauśadhas*. He preached that those powers were impossible to be achieved and should be regarded as mere superstitions which would cause harm to the science of medicine and to the society. He refuted the use of love-potions which was a common practice especially among the womenfolk. He propagated that the people who took these medicines would definitely fall ill and die on account of the unhygienic ingredients. Likewise, Ramanna and some other anonymous physicians discouraged the spread of quacks in the society by ridiculing them and warning the people of the impending danger due to the irrational practices in the medical field. Almost all the medical scholars propagated against the superstitions in the medical field through their writings, and advocated the importance of social service and the humanitarian outlook needed in the medical ground.

On the whole we can see during this period a definite development in the diagnostic, pharmaceutical and therapeutic methods in the science of indigenous medicine. The direct and the indirect patronage by the kings, the reform movement which took place in the medical field during this period, the speedy spread of knowledge pertaining to the drugs, the adaptable nature of the physicians according to the foreign influences reveal the healthy atmosphere that prevailed for the development of the science. The liquidation of the patrons of the practitioners at the local level, the new developments in the western medicine, especially in the surgical and the pharmaceutical methods, the mispropagation by the Europeans against the indigenous medical system from the closing period of seventeenth century led to the stagnation of the indigenous medicine in Andhradesa from the eighteenth century onwards, though it did not lose its popularity completely in the society.

Again in the first quarter of the twentieth century, the revivalist movement was started as a part of the Swadeshi Movement. In 1907, a meeting was arranged at Nasik among the indigenous physicians and a constructive programme was planned to be implemented.¹ In the Madras presidency, Divi Gopalacharyulu and Achanta Laxmipathi started the movement even by 1901. They established a medical college in Madras and conducted annual meetings to bring about a renaissance movement in the History of indigenous medicine. In spite of the financial problems, the Ayurvedic College established in 1901 in Madras survived till a Government Ayurvedic College was found in 1927. This college produced many competent scholars in indigenous medicine.

As the revivalist movement in indigenous medicine was started as a part of the activities of the Indian National Congress, the movement acted under the guidance of the Congress. The Congress held in Poona in 1916 decided to establish separate regional organisations of medical men to give an effective stimulus to the movement and to overcome the language barriers. As a result of it, Andhra Rashtira Ayurveda Sammelanam was formed in 1917. The first meeting of it was held in Bezawada under the presidentship of Sri Divi Gopalacharyulu. He presided over the Akhilabharata Ayurveda Vaidya Sammelan also in that year.

The Andhra medical scholars played a key role in the revivalist movement at the national level also. Their activities started even before the Swadeshi movement. They prepared ground for the establishment of Akhilabharata Vaidyasammelan founded in 1907. Divi Gopalacharyulu held the office of Secretary to Akhilabharata Ayurveda Mahamandali and Akhilabharata Ayurveda Vidyapith which were seated in Madras till 1920. Achanta Laxmipathi took up these responsibilities after Gopalacharyulu. The part played by the medical journals also can be found significant in this movement. The journals such as *Sridhanwantari* (Madras), *Andhravaidya Sammelan Patrika*

1 V.Sankara Sastri, *Ayurveda Itihasamu*, p.232M, Bapineedu (ed), *Andhrasaraswasamu*, Visalandhra Publishers Madras, 1943, pp 254-55.

(Bezawada), *Sudha* (Madras), *Vaidyakala* (Bezawada), etc., brought into light many palm-leaf manuscripts of the medical works and tried through their articles to make the people realise the merits and significance of the indigenous system.

Thanks to the efforts made by the Andhra medical scholars, the indigenous medicine started developing in many aspects such as pharmacy, therapeutics, etc. in accordance with the changing conditions. In 1921, Andhra Ayurveda Pharmacy was started as a joint stock company in Madras and made successful business in drugs for a long time. Thus the revivalist movement in the History of indigenous medicine which was started as a part of the Indian National Movement proved fruitful. Though European surgery is quite superior with its recent developments, the indigenous system proved itself significant, till today, in curing many diseases such as rheumatic pains, high blood pressure, stones in the kidneys, certain kinds of skin diseases and jaundice to which there is no satisfactory treatment in the western system of medicine. The *tridosha* theory around which the indigenous system revolves, has to be studied deeper by the modern medical scholars. It will definitely help them to realise an absolute truth and it will be an immense help to develop an effective and universal system of medicine.

Now it is the responsibility of the government to establish research laboratories along with herbal gardens to precipitate the development of the science. It is also incumbent upon the indigenous as well as the western practitioners in India to conduct in-depth investigations into the indigenous system for the revival of many hidden things and to add the modern developments, even if they are foreign, which are found fitting into the indigenous system. As Bhavamisra and some other medieval Andhra scholars opined, it is a healthy characteristic conducive for the development of the science.

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